Gentrification and trails literature review

February 2021

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INTRODUCTION

This literature review discusses the relationship between trails and displacement by summarizing findings of academic studies and presenting reports and toolkits that have been developed by public agencies and advocacy organizations. Because there is limited research on the correlation of trails and displacement specifically, we also include studies that explore the connection between other natural amenities, such as parks, and gentrification. We discuss several high-profile trails projects that have been heavily studied for their impact on gentrification and displacement and, where possible, we point to smaller or local cases for more comparable examples. We acknowledge that even if a direct link has not been proven, precautions to guard against displacement are generally necessary for infrastructure improvements; therefore, we also provide and discuss mitigation measures.

The first section of the literature review outlines Portland area and Metro documents that detail equity-related plans and policies for trails, parks, and nature. It discusses the historical context leading to current inequities including Portland's displacement history and discriminatory policies. Finally, it defines success for an equitable trail project.

The next part of the review provides indicators, impacts, and examples of gentrification along trails. This is followed by a presentation of mitigation tools and strategies. The report concludes with a discussion on project prioritization criteria and relevant data to select projects that advance equity.

BACKGROUND AND CONTEXT

Metro and other entities in the Portland region have developed plans for creating more equitable access to nature, through trails and publicly-accessible parks. The following section highlights key points from the plans and supplemental reports published by Metro to provide insight on the goals around equity. These documents establish the context to explore the relationship between trails and displacement from gentrification.

Local resources on trails and equity

Metro Equity Baseline Report (2015)

The Metro 2015 Equity Baseline Report furthered the action of Metro Council which, in 2010, adopted equity as one of the region's six desired outcomes. The report outlines equity indicators that were compiled by six community-based organization members and presented to the Senior Leadership Team of Metro, the Diversity, Equity, and Inclusion program, Metro Council, and the Equity Strategy Advisory Group. The report was also shared with community members and organizations that partner with Metro. The purpose of the Baseline Report was to develop a shared understanding of what equity is and what it requires and establish a "durable" approach to assessing equity specific to Metro's roles and responsibilities in the region (Metro Equity Baseline Report). The shared understanding led to a framework that focuses subsequent equity efforts and improves the likelihood that strategies will be successful.

The report concludes that a racial and economic justice-based approach to equity must be adopted by Metro.

Among the important points in the Baseline Report are a set of equity indicators:

- Housing equity

- Transportation equity

- Cultural equity

- Environmental equity

- Health equity

- Economic equity

- Food equity

- Education equity

- Meaningful engagement

- Restorative justice

These indicators spell out areas of focus in Metro's equity framework. Although many of these indicators are related to the research in this review, there are several directly relevant indicators: transportation equity, environmental equity, housing equity, and meaningful engagement. In subsequent sections we will discuss how gentrification affects and can be affected by these indicators.

Metro Strategic Plan to Advance Racial Equity, Diversity, and Inclusion (2016)

The Strategic Plan to Advance Racial Equity, Diversity and Inclusion illustrates Metro's approach as a government agency to include racial equity in its priorities and actions across the Portland region. The Plan was co-created with community-based organizations and Metro's Equity Strategic Advisory Committee. From the Plan, Metro adopted five racial equity goals:

1. Metro convenes and supports regional partners to advance racial equity.
2. Metro meaningfully engages Communities of Color.
3. Metro hires, trains, and promotes a racially diverse workforce.
4. Metro creates safe and welcoming services, programs, and destinations.
5. Metro's resource allocation advances racial equity.

As part of the Strategic Plan, each Metro department was tasked with developing department-specific action plans. The Parks and Nature department created objectives specific to the department to support Metro's racial equity goals.

Parks and Nature System Plan (2016)

The Parks and Nature System Plan reports the mission and role of the department, documents the history of Metro's parks system, provides statuses of Metro's portfolio of assets, and lays out high-priority, mission-critical strategies along with supportive strategies that guide Metro's portfolio. These strategies include or are related to equity.

Diversity, Equity, and Inclusion is one of the six foundational statements of the System Plan and three of Parks and Nature's mission-critical strategies are related to furthering equity. Those strategies are:

- Ensure that Parks and Nature programs and facilities support the needs of underserved communities, including Communities of Color, low-income communities, and young people.

- Diversify the businesses and people who do contracted work for Parks and Nature.

- Build, sustain, and leverage partnerships to advance the region's shared commitment to an interconnected system of parks, trails, and natural areas.

There are also additional, broader strategies to guide Metro's portfolio. Several of these strategies that include equity or equity-related statements are:

- Develop and operate welcoming places that include our region's diverse communities.

- Provide diverse and meaningful volunteer and learning opportunities.

- Increase the capacity of Communities of Color and other underserved communities to be conservation leaders.

- Fund grant programs that support communities' connection to nature.

- Develop a wide range of relationships and partnerships in communities that have limited access to nature.

- Improve the diversity of the region's trail experiences through strategic planning, local partnerships and investment.

- Prioritize trails planning and development projects that connect communities, particularly Communities of Color and low-income populations, to nature.

Each of these strategies – both the mission-critical and additional strategies – are supported by desired outcomes and key actions to take to achieve that outcome.

Parks and Nature Racial Equity, Diversity, and Inclusion Action Plan (2018-2023)

The Parks and Nature Racial Equity, Diversity, and Inclusion Action Plan builds upon Metro's racial equity strategic goals and creates plan objectives and equity outcomes specific to the Parks and Nature department. The Action Plan outlines racial equity outcomes, which include economic equity, environmental equity, and cultural equity. Each objective under the goals includes specific actions and a timeline to carry out those actions.

Past and existing equity concerns

The focus on equity comes with a recognition of historical discrimination and disinvestment. Narratives of safety and sustainability initiate and encourage trails, parks, and other greening projects, but there is a history of exclusion and displacement around these projects that produces contrasting narratives (Lubitow). There are disparities in access and quality of parks and nature for low-income neighborhoods and Black, Indigenous, and People of Color (BIPOC) communities. Discrimination in these spaces can create an unwelcoming environment, and policies, including zoning that created systemic injustices can pose physical and financial barriers to accessing these spaces (Mullenbach). These injustices have impacted who benefits from trails, the shifting demographic landscape of the Portland region, the history of displacement, and how trail projects are viewed by BIPOC and low-income communities.

Disparate benefits of trails

Trails and urban greenways can provide environmental, physical, and social benefits, and also generate commercial and residential development (Harris). They may also reduce crime, improve amenities, and increase property values (Mullenbach). Research has shown that over time, infrastructure such as parks and trails, as well as bike lanes, public transportation, and other pieces of public investment, are associated with physical activity (Hirsch et al.). The concentration of these benefits over time, however, may cluster in certain neighborhoods (Hirsch et al.) rather than being evenly distributed geographically (Mullenbach), warranting questions on how public improvements such as trails are distributed and who benefits from them. In addition to equitable distribution, the context of community values must also be considered.

Research has found that communities use and benefit from green spaces differently. For example, park spaces in Latinx communities along The 606 in Chicago (a high-budget project transforming 2.7 miles of abandoned rail line to trails) reflected their cultural identity and became places of social gathering and leisure (Harris). While Latinx community members on the west end of the trail valued relaxed, recreational space for children to play away from the street, white residents on the east end valued physical pursuits, including running and biking in a more "serious" fashion (Harris). The differences in manner of use led Latinx individuals to feel uncomfortable using the eastern part of The 606, and as a result, Latinx individuals did not fully benefit from the public space. The cultural differences on The 606 highlight the social pressures to use the trail in particular ways that perpetuate the exclusion of Latinx and BIPOC communities from public space (Harris).

Finally, the impact of new development on property values with trails nearby has been a significant detriment to the equitable distribution of the benefits of trails. In Atlanta, the BeltLine has been lauded as a significant greening effort adding 22 miles of trails and linear parks. Rising home prices, however, coupled with minimal efforts to maintain housing affordability and limited access to affordable housing in the vicinity of the publicly-funded project, have priced many people out of the area as the BeltLine is developed (Immergluck and Balan).

Similarly, rising property values in Humboldt Park, home to the Latinx community proximate to The 606 in Chicago, have been tied to trail development and have resulted in displacement. This example highlights a case of trails providing recreational and social benefits to a BIPOC community, while also contributing to gentrification and displacement.

Demographic landscape

The demographics of an area are important contextual information for trail projects. This is especially true for organizations like Metro that aim to provide access to natural spaces for communities who historically have not had access to parks and trails. Oregon has a history of excluding or prohibiting the settlement of non-white residents and as a result, the population is over 75 percent white. Recently the population has shifted towards a more racially and ethnically diverse population. As of 2016, the City of Portland's non-white population increased to 28 percent, from 25 percent in 2000. Statewide, the Latinx population grew from eight percent in 2000 to 12 percent in 2010, and the Asian population of Oregon grew by 40 percent in the same period (Parks and Nature System Plan, 2016). Housing improvement efforts and tax increases between 1990 and 2010, led to rent and housing cost increases making housing unaffordable for "traditional" residents of these areas, primarily BIPOC families. This displacement created a shift in the concentration of Persons of Color from North and Northeast Portland to the outer edge of Portland and into Gresham, Hillsboro, and Forest Grove (Parks and Nature System Plan, 2016).

In addition to exploring racial and ethnic demographics, to meet equity goals it is necessary to consider the different needs for other underserved communities as well. For instance, older adults are a population of concern, especially as the share of older adults in Oregon rises. In 2015, Metro conducted several focus groups found that walking is a top activity for Oregonians over 40 years of age. Values can also differ across communities: some communities valued trails and parks closer to home; however, for other communities, safe transit access to parks was highly valued (Parks and Nature System Plan 2016).

Low-income and transit dependent families desire not only safe access to trails and parks, but also easy access – public transportation with frequent and dependable schedule throughout the week and holidays, especially on major (state and national) and cultural holidays.

Displacement history

The current demographic landscape is built upon a long history of displacing individuals and oppressed communities in the Metro region. Displacement began with the colonization of tribal land through the Oregon Donation Land Act. Settlers killed and displaced many Indigenous inhabitants in order to take the land now called the Metro region; these tribes included the Multnomah, Wasco, Cowlitz, Kathlamet, Clackamas, Bands of Chinook, Tualatin, Kalapuya, Molalla, and other Native tribes (University of Portland).

The history of displacement resulting from trails is closely tied to land use, and therefore planning and zoning. Since the introduction of zoning in the early 1900s, planning as a practice has unintentionally and intentionally been used as a tool of oppression and segregation in Portland (City of Portland Bureau of Planning and Sustainability). Land was increasingly zoned as single family, leaving less space for multi-family developments. This created an income barrier and excluded rental housing options. Furthermore, because banks would not grant loans to Black families, they were not able to purchase homes in areas with single family housing. Additionally, the racist practice of redlining – designating areas of the city as less valuable and/or desirable for loans because of the racial makeup of the neighborhood – was codified by the City of Portland and executed by banks and realtors. Redlining prevented Black and other peoples of color from purchasing homes (Bureau of Planning and Sustainability) because they were also unable to secure loans for homes in their neighborhoods. Both of these discriminatory practices – zoning and redlining – further segregated communities of color into specific neighborhoods, such as the Albina and King Neighborhoods and Vanport in Portland.

Displacement continued in the latter half of the 20th century as cities, including Portland, used "urban renewal" as justification to tear through neighborhoods that had been purposefully undervalued and disinvested in for decades. From the 1950s through the 1970s, Portland carried out large infrastructure projects through neighborhoods that were home to African Americans and other oppressed communities using eminent domain and spurred on by the Portland Development Commission. Projects such as Interstate 5, the Veterans Memorial Coliseum, the Rose Quarter, and Legacy Emanuel Hospital destroyed communities like the Albina neighborhood and displaced many African American families from the same neighborhoods that they were originally segregated in.

In the 1970s, state law under House Bill 100 required public engagement in public projects. In Portland, the neighborhood associations were created to encourage public involvement in land use decisions. This power, however, was not distributed fairly amongst groups, leading to powerful advantages by white homeowners (Bureau of Planning and Sustainability) that contributed to less housing and land ownership opportunities for BIPOC communities.

As the Metro region entered the 2000s, the 2008 economic recession and the regional growth experienced in the mid-2010s both had aggressive impacts on gentrification. As a result of decades of racist policies and inequities, BIPOC communities were displaced, marginalized, and under resourced. As the region economically recovered, the population of the region increased and housing prices increased significantly, with little to no relief for BIPOC communities. Without support and in a system with embedded racist policies, increasing housing prices and rents add to gentrification pressure that can lead to more displacement of BIPOC communities. This is particularly relevant to trails and nature when these communities are displaced to areas with less access to these amenities.

The role of trails in the history of displacement in the Metro regional area is less known but equally important. Home sale prices in Portland increased in relation to proximity to open spaces (Bolitzer and Netusil). Additionally, the land use context (urban, suburban, and rural) and proximity to open space are strong factors that influence the degree to which trails and community displacement are connected (Pogostin). Given the history and research on house values and trails, the equity goals of Metro are ever more pertinent. The history of displacement in Portland and the impacts of environmental gentrification make it critical to consider the implications of contributing to displacement caused by the planning and development of trails.

Impressions of trail projects

The public's impressions of trail projects are difficult to accurately evaluate. It is important to note the historic exclusion of BIPOC communities from public engagement efforts which skews data and impressions to represent white communities. The recent regional ballot measure in 2019, however, can provide some indication on sentiment for trail projects. Based on the Parks and Nature Bond Measure, public impressions of parks, nature and trail projects are generally positive. In 2019, regional voters passed a $475 million renewal bond to support parks and natural areas, including walking and bicycling trails, with 67 percent approval (Metro 2019). This renewal was preceded by bond approvals in 2006 and 1995 and operating levy approvals in 2016 and 2013, indicating a general ongoing support for the investment in trails for the last 25 years. Unique to the 2019 bond was a focus on leading with racial equity, stemming from Metro's Strategic Plan to Advance Racial Equity, Diversity, and Inclusion. Still, BIPOC communities' impressions of trail projects may not be reflected in this trend because of underrepresentation. BIPOC-centered engagement in early 2019 did, however, reveal community concerns regarding the potential for gentrification and displacement of under-resourced communities.

Defining success for equitable trail projects

Equity in trails in the Metro region can be demonstrated in three areas: trail users reflect the demographics of the community, equitable access to the trail system, and systemic support to prevent displacement.

Reflection of the local community

Trails are successful when the users of the regional trail system reflect the demographics of the community. For this to happen, those living in the community, including Black, Indigenous, and People of Color, must be included, involved, and valued in the planning, design and construction processes. This includes how and where trails are planned, what features are included in their design, who has power in decision making, and who uses the trail after it is constructed and completed.

Access and perceived safety

Equitable access to the trail system is another indicator of success. This includes social and cultural change so that BIPOC communities are welcomed and safe accessing parks and trails, and that these amenities are open to them as much as to the white population. The issue of safety is complex and tied to

Metro's Connect with Nature: Planning Parks and Nature with Communities of Color suggests adopting ranger uniforms that look less like law enforcement.

racial prejudice and past trauma from oppression. Some people feel safer with police presence; however, for Black and brown people, more police often means greater risk of violence, and can discourage them from using these spaces for fear of this violence. Unarmed, culturally-competent, and trained safety personnel could provide a sense of safety for BIPOC families as well.

Systemic and programmatic support

Systemic support is another evaluation of success. This describes when the systems and programs are in place to support community members so that displacement does not occur in response to regional trail improvements. This systemic and programmatic support is not isolated solely to trails, but connects with other systems, such as housing and transportation, and provides a holistic approach to the prevention of displacement. To provide BIPOC communities and other marginalized or under-resourced communities with access to trails, Parks and Nature must work in tandem with other agencies and sectors.

TRAIL DEVELOPMENT AND GENTRIFICATION

The answer to whether trails lead to gentrification and displacement must consider the relationship between gentrification and natural and open space amenities. For instance, residential tree canopies are correlated to factors such as household income, housing-market characteristics, and racial and ethnic populations, and they are not evenly distributed, which bars some social groups, namely low-income households and People of Color, from the numerous benefits of urban tree canopies (Heynen et al.). Inequitable impacts like lack of tree cover can be addressed by increased investment in green infrastructure that serves previously under-resourced communities. Despite a nonpolitical, "shared" value of sustainability used as justification to prioritize environmental amenities, the concepts of racial, social, economic, and environmental justice have not always been examined in tandem with these projects (Lubitow). Therefore, it is warranted and necessary to ask about the impacts of trails, such as gentrification and displacement, on BIPOC communities and low-income households.

Indicators

The selling price of a home is one economic indicator of gentrification; it may indicate an overall change in the cost of living in an area and make it difficult for lower income populations to keep pace with increases, forcing low-income families to relocate. Additionally, the selling price may signal a change in the demographics of a neighborhood towards a more affluent, and usually whiter, population (Pogostin). Academic research has used selling price as an indicator to assess the relationship between trails and gentrification and displacement, however, the results have been varied.

In some cases, the selling prices of homes that are closer to multi-use trails are lower compared to homes sold a half mile to one mile away from trails, particularly in urban or rural areas where natural environments may be more abundant than in suburban areas (Pogostin). Other case studies of trails point to community and neighborhood changes. For instance, The 606 in Chicago was used as leverage by developers to advertise high-end apartments in a predominantly Latinx community (Harris). Average home prices within a half mile of the Atlanta BeltLine rose significantly faster – at minimum 40 percent – compared to homes further away – 17.7 percent (Immergluck and Balan). Although rising home prices may be seen by some as a positive effect, this can have negative consequences

The upheaval of community bonds is exemplified in the impacts to school-aged children. Housing stability is one of the determinants of school success. Further, displacing a family necessitates that children transfer schools, leaving friends and teachers who may serve as their "lifelines." This is especially true in the refugee community where student were already uprooted from their home country. They may still be settling into a new country or learning the language.

on homeowners with limited incomes or renters who bear the burden of increased property tax bills (Immergluck and Balan). This increased financial burden can cause families and individuals, disproportionately BIPOC, to move elsewhere, uprooting their lives and unraveling the community fabric.

Studies show that there is a relationship between trails and gentrification. Pogostin (2020) found increases in suburban home prices and, to a lesser degree, home prices in urban areas with access to nature. Other studies (Davis and Gray, Harris, Immergluck and Balan) have shown that new urban trails can lead to substantial increases in home values.

Home value and related variables such as selling price, gross rent, or property tax valuations can be used as indicators of gentrification. Other indicators relate to economic, social, and physical changes in a neighborhood (Mullenbach). Economic changes may also include the income or wealth of residents. Social indicators include the changing demographics of a space, which also lead to changes in values and behaviors about how a space is or should be used (Mullenbach), such as a public park or trails (Immergluck and Balan, Harris). Demographic indicators that have been used in studies include changes in

educational attainment and white population. Physically, home upgrades to existing buildings, public infrastructure projects, and the increase and quality of nearby green spaces are changes that can impact gentrification.

Physical changes

The displacement impact of trail investments is often amplified by other factors. Public transportation projects, sometimes in the form of bike lanes, can spur gentrification (Flanagan et. al, Hoffman, Lubitow and Miller). Major public transportation improvements, such as light rail lines, have expedited the gentrification of neighborhoods. In some cases, they are planned to stimulate and increase property value, and planning agencies recognize this. For instance, affordable housing was not preserved or planned in the construction of TriMet's Yellow Line and there was limited effort to prevent displacement before home prices increased and new housing construction began.

Bike lanes with the intention to make a street "safer" can be perceived as an act of gentrifying, especially if long-time residents value other safety improvements more (Lubitow and Miller). The installation of bicycle lanes in Northeast Portland was contested by the long-time African American residents who, for years prior to the bike lanes, continually argued for transportation safety improvements in the form of pedestrian improvements (Lubitow and Miller). This case highlights that what is "sustainable" and "safe" is contextual.

Additionally, the relationship between environmental projects and housing is fragile and important. Environmental projects, including trails, without an adequate anti-displacement housing plan in place, make housing less affordable (Rigolon and Nemeth), contributing to displacement. The planning process of The 606 exposed a lack of understanding and approach to housing issues by maintaining "tunnel vision" for the project. Ultimately, the governmental silos and isolated sectors perpetuated environmental gentrification and displacement (Rigolon and Nemeth). A similar lack of cross sectoral planning between environmental and housing planning occurred in Atlanta's BeltLine, where a modest attempt at addressing affordable housing fell short (Immergluck and Balan). Strategies such as rent control policies, and project-specific policies prioritizing existing homeowners and existing renters, were not used (Immergluck and Balan) but could be important tools to prevent displacement for future projects.

Although the factors mentioned have been used as indicators of gentrification and, by extension, displacement, it is important to acknowledge that correlation is not causation and these indicators do not predict gentrification or displacement. They identify a situation that may benefit from some of the mitigation efforts discussed in the following sections.

Affected populations

Research by Mullenbach (2018) shows that those most vulnerable to environmental gentrification include renters, older adults, and low-income residents. These groups face far-reaching effects of displacement due to the uprooting of their homes along with their

social connections and ties on which they may be reliant. The impacts of displacement are amplified because these groups are not able to use the social capital that comes from the influx of new residents and the social diversity in public places (Mullenbach). Renters are affected because the increased cost of property taxes is often passed on to them. Older adults, who are often low-income or fixed-income homeowners, may be unable to cover the difference in rising taxes from an increase in their property value. Additionally, as discussed in the previous section, Black communities and other communities of color have historically faced discrimination and currently face systemic racism that impacts their housing options and makes them vulnerable to displacement.

Examples of gentrification impacts adjacent to trails

Various projects can provide insight to preventing environmental gentrification and displacement for future trail projects and give examples of how to ensure trails are designed to welcome all people and benefit all users. Three urban trail projects have been the focus of study to understand the relationship between trails and gentrification. These high-budget projects exhibit the clearest link between trail development and displacement.

One example is New York City's High Line, initiated in 2009. The High Line is a linear park on the west side of Manhattan built along a mile and a half of abandoned elevated rail line. The fact that the project was privately funded through donations invites questions on who the park was built for (Davis and Gray). Despite the private funding, the park is owned by the City of New York. There is debate on whether the High Line is welcoming enough to non-white visitors; compared to similarly sized parks in Manhattan and the demographics of surrounding census blocks, visitors to the High Line do not demographically represent nearby residents (Reichl). The demographics of people who use the park speak to who is comfortable in this public space, and who, by virtue of their absence, may feel unwelcome.

Some focus on the High Line as an example of stoic community activism in environmental design rather than a project with harmful effects of displacement as a result of the trail's development and "prestige" (Davis and Gray). In reaction to negative impacts on the local community after the High Line was built, the park developed "diversified programming," community outreach, and "targeted investments in surrounding neighborhoods and employment of local residents" to carry out this programming (Davis and Gray). Still, this reactive effort is a far cry from genuinely attempting to prevent displacement. Available literature, however, does not specifically address displacement related to construction of the High Line.

The 606 in Chicago is another example of a trail project with related environmental gentrification and displacement issues. The 606 is an elevated rail trail that runs for around 3 miles on the northwest side of Chicago. Publicly funded, the trail has increased housing adjacent to it, and developers of real estate adjacent to The 606 marketed openly to attract financially privileged residents (Harris), increasing housing costs and property taxes of existing homes.

Lastly, Atlanta's BeltLine is another example of a rail trail. The development process is ongoing for the 33-mile loop around the city. The BeltLine made attempts to create affordable housing near the trail by earmarking 15 percent of funding from its public financial sources. This was a modest attempt at preventing displacement, however, and did not include strategies to stabilize housing for existing vulnerable populations such as renters and low-income or fixed-income homeowners nearby (Immergluck and Balan).

Although the projects and context may differ from Metro regional trail projects, these examples show a few noteworthy ideas and their effects. First, the process of designing the trail is critical. None of these examples are models for equitable engagement with local community members. As a result of this inequitable process of funding, planning, and developing the trails, these trails did not reflect, meet the needs of, or equitably benefit the community living in proximity to the trail. Existing residents did not feel welcome on the trails or were eventually forced to move away from the trail, robbing them of the benefits of safe recreational space in which to be physically active and socialize with others. Also, the lack of cross-sectional planning was detrimental. Inherently, displacement involves housing and socially responsible trail planning should involve experts in housing policy. Although trail projects can generate excitement among environmentalists and encourage a speedy design and construction, trail projects must invest the time to consider important factors, such as housing prices and transportation access, and implement actionable policies that monitor/control housing prices and improve transportation access to prevent displacement resulting from gentrification.

MITIGATION MEASURES

The primary negative effect of gentrification is the displacement of residents, especially those in under-resourced areas that could gain the most from investments. Therefore, mitigating negative impacts of gentrification necessitates mitigating displacement of existing communities, particularly BIPOC and low-income residents.

Common tools and practices

Tools used to reduce or eliminate displacement have generally focused on housing policy and land use. They tend to be categorized to describe whether the policy or program is directed towards a person or group of people, protecting their rights and ability to remain in their dwelling, preservation of existing affordable housing, or the production of more affordable housing or housing options. There are also strategies for protecting against small business displacement. Many of the strategies fall outside the realm of Parks and Nature and may be outside the scope of a trail project. However, it is possible, useful, and even necessary for Parks and Nature to coordinate and partner with the housing sector, other Metro departments, and other planning and implementing agencies to employ some of the tools that may fall outside of Parks and Nature's purview, in service of its racial equity goals.

One tool used in the context of development that can find applications in trail projects is the Community Benefits Agreement (CBA). A CBA is a legally binding agreement, negotiated between a developer and the surrounding community. It is specific to a community and benefits from a strong coalition of organizations representing a variety of stakeholders. If the CBA negotiations are led by the local government, it is important to ensure it is instituted early in the development process and the community organizations maintain a strong voice. Co-creation of a CBA with the community can take significant jurisdiction/agency expertise and resources and may be more difficult for a jurisdiction with fewer or non-expert staff to execute and implement.

A tool that will not prevent physical displacement but addresses the cultural erasure that can occur with gentrification is the creation of cultural corridors. Cultural corridors incorporate permanent and temporary art installations that uplift the cultural heritage of the surrounding area. The creation of cultural corridors invests in authentic community co-creation that uplifts artists of color and local artists, and uses community-rooted, participatory processes to design and implement (University of Minnesota). This type of project can be co-created with the community with more limited staff resources from the jurisdiction because expertise is being sought from residents/artists rather than expected from staff.

Planning procedures for inclusion

Planning should be both inclusive and equitable. More discussion on equitable planning is in the following section. Inclusionary planning enables and encourages participation of those who may be impacted by a trail and prioritizes the voices of those who have been traditionally underrepresented in planning processes. Preventing or mitigating displacement and other harmful effects of gentrification requires inclusionary planning. The planning process must consider the varied viewpoints of marginalized populations and plan for long-term community engagement and programming (Mullenbach). Through "Connect with Nature," Metro engaged communities of color through a series of workshop and learned the values and needs of these communities and received recommendations for addressing them (Metro). The Pennsylvania Environmental Council published the Inclusionary Trail Planning Toolkit, a source for best practices for inclusionary planning with many examples of their successful implementation.

Through a substantial set of case studies, the toolkit lays out best practices in inclusionary trail planning. Examples of successful trail projects in Camden, NJ highlighted how to build upon community-led planning processes and use one-on-one interviews and focus groups to gain valuable community insights. Examples in Philadelphia pointed to best practices in community-driven initiatives that can have immediate impact with limited resources, recognizing and elevating local leaders, collaboration across agencies and with housing partners, and expanded opportunities and methods for participation.

Finally, a case study in Washington, DC exemplified keys to one successful trail project developed through inclusionary planning with the use of systems thinking and data-informed decision making, consistent community involvement, and event programming in the eventual trail space. The toolkit goes further to provide additional examples of programs established during and after the trail construction as a tool for inclusive trails.

Through the toolkit and in the literature, it is clear that community involvement is critical to prevent and mitigate negative effects of gentrification. Returning to the New York City High Line project, it presents an example where community voices were drowned out by special interests and other influential people to the detriment of long-time area residents (Mullenbach). As a counterpoint and a local example of how meaningful community input can be obtained and used, the Portland North Williams bikeway project held a series of community dialogue sessions (Lubitow). These conversations led to the acknowledgment of past grievances and a project design that included values and concerns related to equality and justice.

Table 1. Inclusionary trail planning measures (adapted from PEC)

Planning in the community
Instigate and support community organizing
Forge alliances and build a base
Establish buy in
Develop community leadership
Understanding the community
Use data
Map the community
Employ social justice frameworks
Assess risk and resilience factors
Planning events
Decide on events with community
Outreach for events
Plan logistics
Implementing trail
Continue community engagement during construction
Celebrate the opening
Create programming
Create jobs related to the trail

Inclusionary planning allows for deep engagement that helps to redistribute power through the planning process, creating space for marginalized people to gain authority over the places they live and their futures in those places. Metro should integrate best practices from the PEC Inclusionary Trail Planning Toolkit into their planning processes. Some of these practices, such as supporting community organizing, developing community leadership, and designing events with the community, were identified by Metro through "Connect with Nature." As projects are planned, designed, and implemented by local jurisdictions, Metro may need to provide staff or financial support, within its legal capacity to do so, to lower-resourced or smaller jurisdictions and communities to enable them to fully realize an inclusive planning process. This could come in the form of stipends or payment to local leaders, grant funding for consultant staff support on engagement or in the form of direct staff support from Parks and Nature to supplement jurisdiction-led efforts.

Partnerships and coalitions

Partnering with community organizations and non-profits can expand the capacity of Parks and Nature and smaller jurisdictions, and perhaps more importantly, enable inclusionary planning. When partnering with non-profits, it is important for Parks and Nature to maintain leadership of environmental justice initiatives so this work does not become solely the non-profits' responsibility. If that occurs, this can further fissure the connections between trail development and affordable housing and limit coordination between parks and housing (Rigolon and Nemeth). Municipal agencies must have a strong role in cross sectoral integration and prioritizing development without displacement as exemplified by Building Bridges Across the River in Washington, DC (Rigolon and Nemeth).

Partnerships can be grown by supporting community organizing, creating alliances, identifying mutual goals and values, building relationships with ambassadors, and financial and other supports. Efforts to communicate openly with the community and gain buy-in can also establish relationships. There is growing recognition and practice among the planning profession of the need to compensate partner organizations for their time and effort in creating inclusive planning processes. This was a recommendation from "Connect with Nature." It can be challenging to engage and contract these groups only at the time of a project, so Metro may wish to consider a similar approach to the recent request for proposals from the Portland Bureau of Transportation that will create a "bench" that includes community-based organizations who can help with outreach to specific cultural communities as needed for projects. Metro's Equity Advisory Committee follows a similar approach.

Coalition building is identified as a necessary step before gentrification occurs (Voorhees) and is exemplified throughout the case studies of the PEC toolkit. Parks and Nature can provide support resources to build coalitions prior to trail projects that strengthen the community and help gain clarity on shared priorities. These coalitions can help vocalize community needs and concerns by sharing information and providing an avenue to decision makers. The Intertwine Alliance is an example coalition that is bringing together public, private, and non-profit partners to support a regional parks and trails system. Enabling full partner participation of community-based organizations representing BIPOC communities could be another step toward inclusive planning.

Guiding considerations

There is a wealth of existing knowledge to be drawn upon, through local organizing, academia, and residential wisdom, and the University of Minnesota (Klein et. al) developed a toolkit that identifies and synthesizes some of that knowledge. The toolkit collected a set of guiding considerations for public investments in parks and green infrastructure for policy makers, public agencies and regulators, and planners and project managers.

These include:

- Prepare for the long-term. Account for the time, energy, and expenses necessary for long-term effective implementation.

- Public sector enforcement is needed for many anti-displacement policies to be effective.

- The public sector is generally not set up to collaborate efficiently across different agencies, which means creative thinking is needed and pathways are possible.

- Qualitative data is still data. Emotive responses to regulatory measures are useful and necessary and should be considered when analyzing, measuring, and implementing public programs.

- "Placemaking" must contend with the principles of "place keeping" when it comes to gentrification. Be considerate and uplift the labor and emotional investment into a place. Be open to an iterative process.

- Incorporating justice into the execution of a project beyond procedures. Question who owns and profits from its outcomes.

- "Each project is inevitably shaped by historical and ongoing structural conditions." (Klein et. al)

- Planners and project managers can leverage their positions to mobilize colleagues and residents to advocate for broader anti-displacement policy changes.

Agencies outside of Parks and Nature

As mentioned, many tools and practices used to mitigate the negative outcomes of gentrification are outside the realm of Parks and Nature; however, Parks and Nature may partner with other agencies, departments or organizations to support the application of these tools. Key partners will be the housing sector and developers.

Additionally, jobs training programs have been created in a number of projects including in Washington, DC and Atlanta, GA (PEC, UMN). These programs develop job skills within the community around the project and may specifically support BIPOC community members. Similar programs may be implemented in the Metro region by partnering with workforce development agencies. Locally, the City of Portland has several pipeline programs such as the Teen Nature Team and the Youth Conservation Crew. The Teen Nature Team is a volunteer program that connects middle school students with environmental science and stewardship while providing job skills and the Youth Conservation Crew provides the opportunity for teens between 14 and 19 to be employed protecting, restoring, and managing Portland's parks and natural areas.

The aim of the mitigation measures presented are to give voice to marginalized people, prevent displacement, and provide recreational and active spaces for under-resourced communities. It is possible to measure the effectiveness of these interventions by monitoring housing prices, changes in racial demographics of residents, or one of the other

indicators discussed in the preceding section. Additionally, Parks and Nature can set aggressive goals for community engagement efforts and employing inclusionary planning and regularly assess progress towards these goals. The findings shared with affected communities and other stakeholders. Projects could be incentivized to encourage better adherence by developers and monitoring of outcomes.

EQUITY-BASED PROJECT PRIORITIZATION CRITERIA

As mentioned before, planning should be inclusive and equitable. Equitable planning refers to making decisions that fairly distribute trails and park space and prioritize areas in the greatest need for these facilities. The aim of equitable planning is to effect equitable outcomes, namely that there are not disparate impacts in health, well-being, and access across communities. We often think of measures of equitable outcomes to prioritize projects.

Many analyses of the relationship between gentrification and trails and green infrastructure review data over past decades to evaluate the impact of the infrastructure and development. This analysis is not effective in preventing or mitigating negative impacts of a planned project. Still, the indicators for longer time horizon analyses can help identify the potential for gentrification, and tracking these indicators in the lead up to a project can help show if an area is projecting in the direction of displacement. Equity-based project prioritization, however, should use more near-term criteria, such as expanded access to destinations.

Metro's housing bond initiative has stipulated the use of performance metrics related to advancing racial equity, tracked quarterly. Metro's Parks and Nature bond initiative has a principle to advance racial equity through bond investments. Although the Parks and Nature bond team has not yet identified performance metrics, any developed will necessarily flow from the Racial Equity Criteria that are part of the bond's overall program criteria. The process to develop these metrics may inform those included in the prioritization of investments.

An equity analysis should compare impacts across different populations and neighborhoods; an equity-based project prioritization should do the same. The criteria may vary based on the goals of the project, however, for this trails prioritization effort, some measures may include:

- Walking access (less than a quarter mile) from residence to the trail network.
- Distance to transit along the trail network.
- Number of services/essential destinations (e.g. health facility, bank, grocery store) within 30 minutes along the trail network.

Once the criteria identified to track progress towards goals have been evaluated for a given trail segment, the impact on different populations can be calculated; *it is in this comparison that equity is assessed*. For example, the distance to transit along the trail network can be calculated for various neighborhoods and for various demographic groups. Then, that

distance can be compared. This provides an opportunity to see which neighborhoods and demographic groups are underserved and which projects could improve this service. A trail segment that creates a shorter connection from a community of concern to several essential destinations would score better than one that does not have this impact.

Census data and local sources of demographic data should be used to gain a better understanding of who will be served and who will be impacted. Special attention should be paid to BIPOC, low-income households, older adults and youth, and people experiencing a disability. Metro may wish to be consistent in the geographies it uses across various planning efforts, such as the Equity Focus Areas that were identified to help prioritize projects for Get Moving 2020. Given that the prioritization exercise is region-wide, this level of geographic detail is likely appropriate as opposed to the high granularity of analysis necessary for an equity analysis on a project like Southwest Corridor.

Demographic and Census data are also useful to monitor indicators and signals for potential gentrification in planned trail areas, like those discussed in the previous section. Metro's Equitable Development Index Tool developed for the SW Corridor Equitable Development Strategy contains indicators of affordable housing such as median gross rent and home ownership rate, indicators on vulnerability to housing price increases such as population in poverty and high school graduation rate, and a number of other considerations such as connectivity and health. This tool may be a helpful resource for data related to the potential for gentrification.

Some criteria can direct projects towards more equitable processes as well; an equitable process is part of the Parks and Nature bond criteria and may need to be reflected in evaluation of potential trail projects. For evaluating property acquisition opportunities and prioritizing trail projects, inclusion of criteria related to equitable processes can occur once the public process is envisioned for these efforts. For evaluating grant applications, it may be valuable to have a qualitative measure whereby an applicant's proposed engagement process is reviewed, and a scored assessment of that proposed process is incorporated into application prioritization. This assessment could include:

- Type and number of outreach events/touch points; method for conducting outreach may be equal to or better than the number of outreach events. For instance, going to community rather than having them come to us.

- Community-based organization participation and buy-in.

- Plan for evaluation and course-correction (as needed) to gauge and ensure an inclusive process.

Finally, qualitative data and primary input are necessary to assess the effectiveness of projects. Surveys, focus groups, and interviews may be conducted to collect data. The results can be analyzed using methods like coding. Social learning, a deliberative approach to planning that deemphasizes consensus and encourages discussion and listening to understand diverging views, can also be used to adjust programs and interventions to be more effective.

As with any goal, equity must be considered in the context of other goals. In the context of green gentrification, the three E's of sustainability (environment, economy, and equity) must be balanced. Equity factors must be balanced with environmental factors (Campbell, Rigolon and Nemeth) or sustainability will be used as an excuse to sacrifice equity. Economic and market factors cannot outweigh equitable outcomes or the project will displace residents. The tradeoffs made between these E's result from the priorities of the planning agency. The project level goals, the community needs, and the resources and limitations of the area should be used to balance equity, environmental benefit, and market forces.

FUTURE WORK

This literature review presents key findings from research that evaluate the relationship between trails and displacement and related work. Related work is included primarily because there is limited research on the specific topic and a definitive stance on the correlation was not found. Still, the relationship between trails and property values and, in some cases, displacement has been observed and remains a concern. To better understand this concern, a study of qualitative data could provide insights on the experiences of individuals and community organizations.

A reason correlation is difficult to discern is because a trail may not be the only improvement in an area. Exploring the compounding effects of investments could disentangle the impacts of trail development on gentrification.

Finally, the development of Parks and Nature Bond funded projects will provide opportunities for Metro to apply mitigation measures presented in this paper and evaluate the impact that these urban trail project will have on property values and the efficacy of the measures.

ADDITIONAL RESOURCES – DEFINITIONS

The following definitions provide a shared communication and structure for the terms in this literature review.

Racial equity: Racial equity is the condition when race can no longer be used to predict life outcomes and outcomes for all groups are improved. – Government Alliance on Race and Equity (2015) "Advancing racial equity and transforming government: A resource guide to put ideas into action." http://racialequityalliance.org/newsite/wp-content/uploads/2015/02/GARE-Resource_Guide.pdf

Displacement: Displacement occurs when any household is forced to move from its residence by conditions which affect the dwelling or its immediate surroundings, and which: 1. are beyond the household's reasonable ability to control or prevent; 2. occur despite the household's having met all previously imposed conditions of occupancy; and 3. make continued occupancy by that household impossible, hazardous or unaffordable. (George and Eunice Grier, *Urban Displacement*. 1978)

Gentrification: Gentrification occurs when a neighborhood with attractive qualities—for example, location or historic architecture—has a relatively low value. This disconnect between potential value and current value result from historic disinvestment by public and private sectors. The area then becomes desirable to higher-income households and/or investors and there are changes in the housing market; as demand rises for the neighborhood, higher-income households outbid low-income residents for housing, and new development and economic activity begins to cater to higher-income residents. Lower-income households and/or households of color migrate out of the neighborhood and new in-migrants change the demographics of the neighborhood. (Bates 2013)

Equity: Metro's working definition of equity reads: "Our region is stronger when all individuals and communities benefit from quality jobs, living wages, a strong economy, stable and affordable housing, safe and reliable transportation, clean air and water, a healthy environment and sustainable resources that enhance our quality of life. We share a responsibility as individuals within a community and communities within a region. Our future depends on the success of all, but avoidable inequities in the utilization of resources and opportunities prevent us from realizing our full potential. Our region's population is growing and changing. Metro is committed with its programs, policies and services to create conditions which allow everyone to participate and enjoy the benefits of making this a great place today and for generations to come."– Metro's Equity Strategy Advisory Committee (2014).

Environmental justice (EJ): EJ operates at the intersection of economic, racial, and social justice. EJ is a movement led by communities of color and low-income communities experiencing environmental injustices: polluted air, soil and water; unsafe housing, roadways, sidewalks, and bus stops; inequitable investments in housing, access to nature, active transit and mass transit; and disproportionate impacts due to climate change. Many of these problems arise because communities of color and low-income communities are not

participants in the decision-making process that produces these results and EJ requires meaningful participation in the process. EJ challenges the mainstream environmental movement to address systemic and historical causes of these environmental problems and is a community-driven, multiracial movement to restore justice to our communities. – OPAL Environmental Justice Oregon (2018) http://www.opalpdx.org/ej-101/

Historically marginalized: A limited term that refers to groups who have been denied access and/or suffered past institutional discrimination in the United States and, according to the Census and other federal measuring tools, includes African Americans, Asian Americans, Hispanics or Chicanos/Latinos and Native Americans. This is revealed by an imbalance in the representation of different groups in common pursuits such as education, jobs, housing, etc., resulting in marginalization for some groups and individuals and not for others, relative to the number of individuals who are members of the population involved. Other groups in the United States have been marginalized and are currently underrepresented. These groups may include but are not limited to other ethnicities, adult learners, veterans, people with disabilities, lesbian, gay, bisexual, and transgender individuals, immigrants and refugees, different religious groups and different economic backgrounds. – University of California, Berkeley (2015). Berkeley Diversity – Glossary of Terms.

BIPOC: BIPOC is an acronym for Black, Indigenous, People of Color. It is used to recognize the violence and oppression experienced specifically by Black and Indigenous people during the founding of the United States, which continues to shape the experiences for all People of Color in the US.

Structural racism: Structural racism refers to a history and current reality of institutional racism across all institutions, combining to create a system that negatively impacts communities of color. – Government Alliance on Race and Equity (2015) "Advancing racial equity and transforming government: A resource guide to put ideas into action." http://racialequityalliance.org/newsite/wp-content/uploads/2015/02/GARE-Resource_Guide.pdf

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