



Connected Neighborhoods

Connected Neighborhoods allows the region to build on its current strengths, where new businesses can continue to locate in an existing industry cluster or in existing main streets and commercial corridors, if they are focused on providing goods and services. This scenario still allows the possibility of innovation and prioritizing employment opportunities for the local workforce. Since this scenario more closely matches the existing pattern of business locations, it will also likely require a smaller package of incentives to businesses. With future infrastructure and transportation investments, business choices can expand as well, aligning with the growth envisioned in *Plan Bay Area 2040* and plans for new workforce housing in the Priority Development Areas¹ (PDAs).

In this well connected option, workers will continue to benefit from good access to employment options, as well as the region's schools and training institutes. There will, however, continue to be work needed to achieve a better jobs-housing fit and reduce the strain on the existing workforce development system by prioritizing other needs of workers, such as access to affordable housing. Land use designations will need to carefully weigh the need for infill housing with the need to provide space for growing employment sectors.



Big Cities

Big Cities reduces development pressure on greenfields in the less urban parts of the region while providing the possibility of taking advantage of dense concentrations of residents and businesses to improve travel efficiencies. It may offer the economies of scale necessary to invest in state of the art infrastructure to attract firms at the cutting edge of innovation, positioning the region to reach even higher levels of industry excellence.

With all these benefits, the option is also the most resource reliant. The cost of space for businesses and households can be high as businesses and developers compete for space in even tighter parameters compared to *Connected Neighborhoods*. Substantial subsidies and incentives for business can be required to provide new housing affordable enough for the workforce of the future. Balancing resources required for comprehensive upgrades to existing infrastructure in the region's three largest cities and nearby areas connected by transit can have other costs.

Expanding Economic & Workforce Prosperity

Plan Bay Area 2040



Plan Bay Area 2013 was developed during one of the Bay Area's most challenging periods in recent times. While focusing on providing space and transportation systems for regional growth, economic questions over jobs shrinkage hovered in the background, as to whether the region would indeed be dealing with growth, rather than stagnation or decline. Jump ahead four years, and the situation differs dramatically. The Bay Area economy has made a decisive recovery from the effects of the Great Recession and is in the midst of a strong expansion.

However, the impacts of the recovery and the benefits of prosperity are shared unevenly throughout the region. While San Francisco and Silicon Valley are booming, other areas of the region are still struggling to attract jobs. Income inequality in the region is greater than in California or the US, and there is a risk that many people in



the region will not share in the Bay Area's continued economic success. Furthermore, the lack of affordable housing has become a major limitation for expanding businesses and may result in a diversion of a portion of employment expansion outside of the region.

For *Plan Bay Area 2040*, the questions are how far and how fast can the region grow, how many will enjoy the fruits of that growth, and who might be left behind economically or displaced entirely from the region. Although the Bay Area has an enviable economy, we need to take steps to sustain economic vitality—and expand the number of people who experience that vitality. One of the key questions for the Bay Area's future is how the region's rising economic tide can provide more opportunities for low- and moderate-income households.



A Focus on Actions for Regional Economic Prosperity

A series of initiatives addressing the region's economic prosperity and resilience are either recently completed or underway in the Bay Area. The *Economic Prosperity Strategy*, with a focus on economic opportunity for low- and moderate-wage workers, was published in 2014, reporting on two years of research and engagement supported by a grant from the US Department of Housing and Urban Development (HUD). The San Francisco Bay Area Council Economic Institute (BACEI), with support from MTC and the Bay Area Council, convened business leaders around *A Roadmap for Economic Resilience: The Bay Area Regional Economic Strategy*, published in November 2015, identifying critical actions needed to maintain the region's competitive advantage.

¹ Priority Development Areas are areas where amenities and services can be developed to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit.

Further regional actions currently underway include:

- The collaboration of local and subregional economic development organizations with ABAG to create a Comprehensive Economic Development Strategy as the next step in positioning the region for cooperative economic development efforts among entities within the region as well as with state and national programs.
- An in-depth analysis of industrial sectors depending on industrial space and identification of geographies and sectors at risk of displacement through competing pressures on land use
- Additional groups focused on specific aspects of workforce or business development (such as the Bay Area Community College Consortium) are also broadening their focus to include a regional lens for understanding issues and strategies.

Implications for Plan Bay Area 2040

The efforts mentioned above have identified key interrelated economic and workforce concerns and opportunities that are sensitive to land use and transportation in particular, which can influence the issues these organizations address as well as their options to tackle the issues.

Major concerns and goals include:

- Land use regulations, critical to the success of a regional plan, can enhance or impede the flexibility of employers to respond to economic opportunities or changes. In the past, regulations have added costs that affect the business competitiveness. These consequences should be understood and addressed as part of the equation in developing a strong regional plan.
- Modernized and resilient infrastructure is crucial to the continued economic health of the region. This includes not only buildings and transportation facilities but also communications networks, flood control and sewer and water channels that serve homes and businesses.
- Housing is number one on many lists of the barriers to business and workforce prosperity in the region. How the regional plan addresses the gap between housing demand and supply will have a direct effect on the region's employment growth, on the access of workers at all income levels to employment opportunities, and on the access of employers to the mix of skills required for successful operation of their businesses.
- Transportation can be a route to opportunity or a

barrier. The investments selected must balance maintaining and improving efficient use of existing assets with judicious investments to improve accessibility for residents, businesses, and workers to goods and service providers.

- Workforce opportunities and availability are tied directly to the four factors described above. Programs under development to provide a well-trained and educated workforce will be undermined if housing and travel options are not available or affordable for that workforce, or if the regional land use distribution blocks access of the workforce to employment or education and training opportunities.

While land use and transportation choices will have a strong bearing on the kind of economic development that emerges in the region, other critical factors would require expanding the scope of *Plan Bay Area 2040*. There are significant challenges within the existing workforce development frameworks, in particular, that are impediments to advancing economic prosperity equitably to the region's workforce. The economic development initiatives described here will address these concerns regardless of the chosen pattern of land use and transportation investments.

Viewing the Scenarios from an Economic Development Lens

Each of the PBA scenarios inherently presents advantages and disadvantages. The following is a brief analysis of the three scenarios.

It is important to note that land use or transportation alone may have limited effectiveness in maintaining or improving the region's economy. The locations businesses choose vary by the type of activity they are engaged in. For example, key industrial sectors that drive our regional economy tend to locate in or near existing employment centers, particularly if they require specific types of transport access including highways, rail, ports, or airports (e.g. goods movement industries), or if they benefit from networking or linkages with nearby suppliers. These sectors may form similar clusters as with the tech sector, most often in medium to large sized cities. Sectors that provide goods and services to residents, on the other hand, tend to locate near population centers (e.g. retail, grocery) and are less dependent on the size of the center. Overall, these characteristics make it difficult to significantly shift the location choices of new or expanding firms through land use decisions alone and can be achieved only gradually over time.



Main Streets

Main Streets may provide outlying areas with better access to employment in retail and local service businesses and more naturally affordable housing options. Jobs created through small businesses will efficiently absorb workers locally. However, more dispersed jobs in the region would be less likely to result in larger employment centers, such as big technology hubs, in new locations, absent a high level of fees, subsidies and incentives. Substantial new infrastructure and transportation improvements would also be required in these areas to support more dispersed employment clusters, including strategies to enable workers—particularly lower income employees—to access the more dispersed jobs. Further, providing services to more dispersed student and employer client bases may be challenging for the existing workforce development system.

Increasing Housing Choices and Affordability

Connected Neighborhoods (cont.)

In this scenario, housing in the outlying parts of the region generally becomes cheaper as development is concentrated in areas with existing high-quality transit and the three largest cities. However, communities in these areas will need to take steps to provide housing that is affordable to very low- and low-income households. This could include strategies such as an inclusionary housing policy or impact fees dedicated to subsidizing affordable housing. Subsidies for transit use or shuttles that connect to major transit routes might be needed for very low- and low-income households living in outlying areas to be able access employment opportunities concentrated along the major corridors.



Big Cities

This scenario concentrates future housing growth in the region's three biggest cities—San Jose, San Francisco, and Oakland—as well as neighboring cities that are well-connected by transit. This scenario assumes that taxes are levied on the value of land, rather than the current system of taxing the value of both buildings and land. As with *Connected Neighborhoods*, the communities where growth is targeted will need additional tools and strategies to address some of the existing obstacles to housing development, including policies to streamline the project approval process, support parcel assembly, and invest in infrastructure improvements (some of which could be financed by this alternative funding mechanism of a land value tax). It is likely that this scenario might require more substantial infrastructure investments to support highly concentrated growth in the region's core urban areas, which often have older infrastructure systems. In particular, this scenario will need expanded transit capacity into and out of the big cities so residents throughout the region can access employment opportunities concentrated in the region's core.

Concentrating growth in a more limited number of places will have complex effects on housing prices and housing availability. Large expansion of housing supply in these areas could make some units more affordable for middle- and upper-income residents, but to the extent new construction replaces existing housing occupied by middle- to lower-income households, it could lead to additional displacement pressure. In some places, where new housing is aimed at a luxury market, overall price could actually increase, despite the growing number of units. To address these challenges, the three big cities and other high-growth areas will need policies and funding to preserve existing housing affordability or to construct affordable housing to serve the needs of the neighborhoods at risk. It will also be particularly important for these jurisdictions to adopt anti-displacement policies as well as locally-appropriate tenant protection and rent-stabilization policies.

To ensure development of affordable housing in areas with significant growth, this scenario assumes that the three big cities and neighboring jurisdictions have an inclusionary housing policy. This scenario also assumes that the three big cities promote development of second units as a way to increase the housing supply and improve housing affordability. Similar to the other scenarios, *Big Cities* includes a fee on residential development in areas where residents have the longest commutes. The fees collected would still be dedicated to providing affordable housing in the most VMT-efficient locations throughout the region.

Similar to *Connected Neighborhoods*, housing in the outlying parts of the region generally becomes cheaper as demand is concentrated in areas with existing high-quality transit and the three largest cities. However, communities in these areas will need to take steps to provide housing that is affordable to very low- and low-income households. This could include strategies such as an inclusionary housing policy or fees dedicated to subsidizing affordable housing. Subsidies for transit use or shuttles that connect to major transit routes might be needed for very low- and low-income households living in outlying areas to be able access employment opportunities concentrated along the major corridors.



One of the most significant impediments to achieving *Plan Bay Area 2040's* sustainability and equity goals is the lack of housing affordability, and simply the lack of housing. The Bay Area has not built enough homes to keep up with demand over the past several decades, which has contributed to high housing costs. The chronic lack of affordable housing options has become most acute in areas of the region with the greatest access to jobs and amenities, but is now experienced by renters and buyers almost everywhere.

Accelerated by a booming tech economy, the attractiveness of the Bay Area housing market to foreign investors, and the emergence of the disruptive short-term rental sector, the pervasive and sustained rise in housing costs also translates to displacement of both lower income and middle class households. To achieve the vision outlined in Plan Bay Area 2040, the region will need to develop more housing,

especially affordable and workforce housing; preserve the affordable housing that already exists; and reduce displacement pressures on existing residents.

To prepare for the evolving housing preferences of a changing population, the Bay Area will need a greater variety of housing types, such as apartments, condominiums, and townhouses to meet the housing needs of people at all stages of life. Recent Bay Area development trends are aligned with the vision of more focused, transit-oriented growth, as there is increased demand for locations throughout the region that are near transit. However, obstacles remain to the goal of providing homes that are affordable to people at all income levels.

A combination of rising income inequality, high land prices and construction costs, and regulatory issues make it difficult for developers to build housing that middle-income households can afford.

Developers of affordable housing do not have sufficient subsidies to make homes affordable to low- and very low-income households. Housing development is also constrained by the lack of funding for the infrastructure needed to support new homes.

As home prices rise in places with excellent transit access, many low-income communities face displacement from established neighborhoods to less expensive areas with more limited access to opportunity and a lack of supportive social and cultural networks. In addition to expanding the supply of homes that are affordable to people at all income levels, communities in the Bay Area will also need to adopt strategies to preserve existing housing that is affordable to low- and very-low income households and policies that help protect existing residents from being displaced from their homes because of new construction or rising prices.

Assessing the Scenarios

The *Plan Bay Area 2040* scenario analysis allows us to evaluate the impact of different kinds of policies and investments on the ability of cities to provide a range of housing choices and reduce the potential for displacement of existing residents. They also allow us to identify some of the challenges to achieving these goals and to consider the range of strategies necessary to overcome those obstacles under varying market conditions and shifts in consumer preferences.

The different scenarios have been crafted to include some housing strategies (such as second units or inclusionary zoning) only for particular geographies that are consistent with each scenario's underlying land use pattern, even though these policies might be beneficial if expanded to all parts of the region. The scenarios also try to capture some of the funding strategies that will be essential to meeting the region's need for affordable homes, but do not incorporate the full range of possible approaches or all locations where they might be targeted.

It is the intent of the *Plan Bay Area 2040* preferred scenario to include effective approaches from each scenario and potentially apply them to more areas throughout the region. There are also some policies and strategies that will be necessary no matter what land use pattern is in the preferred scenario. For example, in any preferred scenario the region will need significant new funding to support affordable housing development and infrastructure investments, strategies to streamline the development process, and policies to address the needs of residents at risk of displacement.



Main Streets

By encouraging development of housing and jobs throughout the region, *Main Streets* would concentrate less of the total housing development in the biggest cities and in areas close to high-quality public transit. This may increase the availability of affordable housing in communities more distant from jobs and transit but could increase the cost in locations close to transit. The effects of a more dispersed development pattern on the region's overall risk of displacement is uncertain. Vulnerable lower-income neighborhoods near transit in the region's core will experience less development pressure, yet displacement could still occur if those areas are attractive residential locations for higher income workers who are able to pay higher rents.

In spreading new homes to communities throughout the region, this scenario emphasizes housing types that are more similar to what has already been developed in many suburban communities, which should reduce concerns about adding new housing. A significant share of growth would be single-family homes, and the scenario also emphasizes development of second units (or granny flats) in all jurisdictions to boost the supply of affordable homes, while utilizing the region's existing single-family housing stock.

While lower development costs in the outlying areas of the region might increase the financial feasibility of developing affordable housing, many of these areas would not compete well for existing federal and state funding sources for affordable housing, which are generally targeted to mixed-use areas with access to transit. As a result, the region would need to develop other policies and funding sources to ensure that affordable housing will be available in all areas of the region. In this scenario, funds for affordable housing are raised through new taxes and fees that would generate over \$500 million per year. There is also an impact fee on office and retail development in areas where employees have high average commute lengths would be levied to raise funds for developing affordable housing in areas where people generally drive less. The scenario also assumes that local jurisdictions would implement inclusionary housing policies as a way to provide affordable homes. Subsidies for transit use or shuttles that connect to major transit routes might be needed for very low- and low-income households living in outlying areas to be able access employment opportunities concentrated along the major corridors.



Connected Neighborhoods

This scenario focuses future housing growth in Priority Development Areas (PDAs) along the Bay Area's major transit corridors. PDAs are areas where amenities and services can be developed to meet the day-to-day needs of residents in a pedestrian-friendly environment served by transit. By focusing on PDAs, this pattern is aligned with local plans for growth, and is also consistent with recent development trends and consumer preferences for new multi-family housing near transit. This market alignment should make it easier for development goals to be met. However, the region will need additional tools and strategies to address some of the existing obstacles to housing development. These would include policies to streamline the project approval process, support for parcel assembly, investment in infrastructure improvements, and ensuring that units meet the need at all levels of affordability.

Communities along transit corridors where growth is targeted will likely experience housing price increases along with increased demand. Also, low- and moderate-income households living near transit are more likely to experience additional displacement pressure. To ensure development of affordable housing in areas with significant growth, this scenario assumes that jurisdictions with PDAs have an inclusionary housing policy. This scenario also assumes that all of the jurisdictions along the major corridors promote development of second units as a way to increase the housing supply and improve housing affordability.

New funding sources are needed for preserving existing affordable homes in the areas where growth is targeted. Similar to *Main Streets*, this scenario assumes that a fee on office and retail construction in zones where employees have high average commute lengths would be levied to raise funds for preserving and developing affordable housing in PDAs throughout the region. It will also be particularly important for jurisdictions along the major corridors to adopt policies that address displacement concerns by preserving and expanding the number of affordable units, as well as locally-appropriate tenant protection and rent-stabilization policies.

Building Resilient Communities



Connected Neighborhoods

This scenario encourages growth along the Bay Area's major transportation corridors, which offer redundant transit networks. Access to different transit and roadway choices (such as Caltrain, SamTrans, BART, and Highway 101 along the Peninsula) would give people travel options if a disaster damages a particular transit line. Additionally, focusing infrastructure investments in fewer, more robust corridors improves and expands capacity in current service areas rather than expanding infrastructure to undeveloped areas. This ensures that investments benefit both existing and new residents. This redundancy may make it possible to assist a larger number of residents after a disaster.

However, the higher density, older housing that is often found along existing corridors may be more vulnerable to earthquake damage than newer single-family homes. Even new multi-family housing built to current building codes may suffer greater damage in a disaster than single-family homes, which means the focus on multi-family housing in this scenario could result in greater displacement after a disaster. Higher density areas are also less likely to be able to shelter residents within their neighborhood if their homes are severely damaged. Additionally, the existing primary transportation corridors (including Highways 101 and 80/880) run parallel to the main fault systems in the Bay Area and are located along the shoreline or cross tidal creeks and channels. This makes it more likely that most of the homes concentrated along these corridors will experience strong and violent shaking, or be exposed to sea level rise and increased flooding.

For *Connected Neighborhoods*, the strategies to maximize resilience and minimize disaster impacts could include improving building codes to reduce the likelihood of severe damage to new multi-family and single-family homes in an earthquake; enacting seismic retrofit policies for existing homes within the corridors to reduce the likelihood of severe damage to older buildings in an earthquake; increasing the capacity and redundancy of transportation modes, such as ferry and BART, to ensure that damage to any transportation mode along a corridor is not catastrophic; focusing highly vulnerable land uses (such as housing, emergency services, public services, and health care) in lowest risk areas and using highest risk areas for parks or more transient land uses; and identifying transportation "hot spots" for flooding, such as where infrastructure is located in highest flood risk areas, to prioritize protection or re-routing these areas as densification occurs.

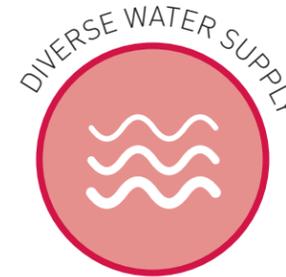


Big Cities

Concentrating new growth in existing urban centers provides certain resilience benefits. For example, more dense housing enables more residents to walk and bike for most trips, significantly decreasing reliance on vulnerable transportation systems such as roads and rail. Density also increases the likelihood that residents live near, or have close access to, jobs, services, and shopping, and can access these easily after a disaster. Increasing the density of existing urban areas also provides the greatest opportunity to upgrade and expand infrastructure, and to implement more innovative infrastructure solutions, which significantly increases the resilience of infrastructure networks. Investments in costly flood protection measures are more cost effective with high density homes, since they protect more people.

However, the big cities are all located very close to earthquake faults and along the Bay shoreline at significant risk from coastal flood events. Focusing a large portion of the population within a small geographic area means that a single disaster in that area could affect a significant number of residents. Hazards can have highly localized impacts, so a disaster in any of the three big cities would likely be devastating to a large portion of the population. Additionally, existing infrastructure in most urban areas is aging, and it can be very challenging to manage storm and floodwaters in high density urban environments that drain into the Bay.

Strategies to consider for *Big Cities* could include making major investments in existing and new utility and transportation infrastructure in the big cities, including alternative systems such as electricity micro-grids, to provide the greatest protection for a significant portion of the population; significantly upgrading vulnerable existing homes, schools, and places of congregation through mandatory retrofits; reducing demand for resources like energy and water through efficiencies and on-site production, improving the ability of a community to meet its own needs if a major disruption occurs; and carefully implementing land use strategies that densify lowest risk areas and abandon highest risk areas.



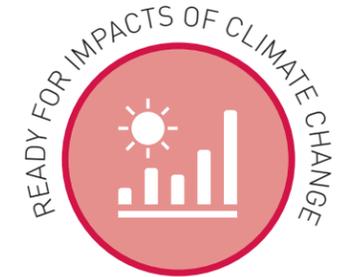
Communities must prepare for a range of disruptions, from climate change and earthquakes to economic recessions and the displacement of residents because of development pressure. Some of these stressors are acute shocks, such as an earthquake or flood, while others develop over time, such as sea level rise. Long-term stressors can also impact the likelihood of an immediate shock, for example, drought can cause increased risk for wildfire, and sea level rise can exacerbate storm or flood events. A resilient Bay Area has to be socially, economically, and environmentally adaptive with individuals, organizations, and communities responding affirmatively to change.

There are many different types of stressors that might affect the Bay Area, but this assessment of the *Plan Bay Area 2040* scenarios focuses on those related to natural hazards.



Residents of the Bay Area have long been aware that a tradeoff for living alongside a vibrant and beautiful bay is the risk of natural disasters such as earthquakes, flooding, and wildfires. More recently, stressors such as rising seas, a limited and compromised water supply, and changing storm patterns have challenged the Bay Area.

Resilient communities are those not undone by the impacts of natural hazards but ready to prepare for, respond to, and recover from them. Taking proactive steps to decrease potential disruptions caused by a natural disaster and to prepare for the process of recovering and rebuilding communities can make communities stronger today and help them stay intact in a stressful post-disaster environment.



The fact that the Bay Area is vulnerable to stressors does not mean that we cannot build vibrant and safe communities within the region. However, ensuring these communities are resilient to natural disasters requires a holistic understanding of how to respond to risk. Living with risk means that all decision-makers need to make conscious and informed decisions about what level of risk is acceptable, as well as what tools we have to help mitigate risk and ensure that loss of life, injuries, displacement, and disruption of everyday life is minimized when disasters occur. The policies and strategies that we identify to achieve *Plan Bay Area 2040's* vision of economic prosperity, housing affordability, and environmental sustainability must address existing and future demands and threats, such as sea level rise and earthquakes.

What Could Resilience Look Like for the Bay Area?

Resilience is a framework for thinking about how cities can be more ready and responsive to short or long-term natural disaster stressors that incorporates an understanding of natural disasters into the way we make decisions about the future of the region. Over the next several decades, the Bay Area faces an increasing probability of seismic events as well as changes to weather patterns, the frequency of flood events, and the water cycle due to climate change. Investing in the future of the Bay Area requires incorporating resilient practices into any growth scenario, ensuring that investments are smart and provide long-lasting benefits.

While disaster patterns may be complex, actions can be taken before, during, and after a disaster that comprehensively build resilience. As we plan for any future growth scenarios, cities can incorporate resilience-building strategies through preparedness, mitigation, adaptation, and recovery planning. Preparedness helps residents and businesses respond to disasters in a way that reduces long-term disruption and allows immediate needs to be met after a disaster. Mitigation incorporates strengthening or rebuilding to reduce the negative impacts of a hazard to the built environment, but can also refer to reducing greenhouse gas emissions to minimize climate change impacts.

Adaptation means responding nimbly to changing conditions and accommodating negative new conditions (essentially mitigation for long-term stressors). Recovery planning helps to ensure that disruptions are minimal, and that the region is able to return to a “new normal” after a disaster event.

No matter how the region grows, protecting assets and making informed decisions to incorporate resilient practices into growth patterns is critical. While the specific strategies prioritized for each scenario may be different, we have many tools at hand to help protect our people, quality of life, beauty and character, and public and private investments in our communities against both short-term shocks and long-term stressors.

Assessing the Scenarios

No single *Plan Bay Area 2040* scenario is objectively safer than another. The land use pattern in each scenario presents different advantages and disadvantages related to the region’s risks and vulnerabilities. Each scenario will require a different suite of strategies that would be prioritized in response to the specific vulnerabilities emphasized or de-emphasized by the scenario. The following is a short analysis and suggested priority strategies for a responsive approach to resilience for each scenario.



Main Streets

The dispersed growth pattern in this scenario incorporates more single-family homes compared to other scenarios. Incremental seismic code improvements have made newly-constructed single-family homes less likely to be damaged to the degree that residents will have to leave their homes after an earthquake. Additionally, even if homes are damaged, lower density development provides adequate space for temporary structures, such as housing and businesses, which may be needed after a disaster if existing structures are significantly damaged.

Dispersed growth patterns also distribute exposure to hazards. The vast majority of the Bay Area is exposed to strong ground shaking from earthquakes, but any single earthquake event will not impact the entire Bay Area evenly. If people and jobs are widely distributed, any single event is less likely to impact the majority of the population. Additionally, distributing growth away from the bay shoreline minimizes the number of people who will be exposed to liquefaction and coastal flooding due to sea level rise and storm events (though inland areas are still subject to flooding along rivers and flooding due to backups in stormwater and flood infrastructure).

However, dispersing people and jobs also leads to distributed investments in infrastructure systems, such as water, sewer, power, and roads. This increases the size of these systems and leads to wider exposure to hazards, and may make it more difficult to provide recovery assistance throughout the region after a disaster. Larger, more distributed infrastructure systems can stretch investments thin, possibly leading to limited improvements to existing systems and limited redundancy. A more distributed growth pattern also increases the probability that residents live far from where they work, shop, and recreate, which may impact their ability to access daily needs and get to jobs after a major disaster. Additionally, though fewer homes may be exposed to coastal flooding or sea level rise, those that are exposed will be at significant risk with few options aside from moving them or large-scale structural protection measures. More distributed growth could also increase the overall amount of paved surfaces, increasing water runoff in storm events, exacerbating shoreline flood conditions.

For this scenario, certain strategies can be utilized to maximize resilience and minimize impacts from a disaster. These could include investing in distributed infrastructure designs, such as on-site renewable energy to decrease reliance on a large infrastructure grid and increase independence; supporting creation of activity nodes in communities throughout the region so residents can efficiently access goods and services near where they live; enacting land use policies that minimize new development in areas of highest hazard risk; emphasizing redundant transportation choices, including roads, rail, bus, bike, and walk options to help maintain mobility if modes are damaged after a disaster; implementing green infrastructure solutions for stormwater management; improving existing stormwater and flood control infrastructure; improving wastewater conveyance; and distributed wastewater discharge.