



FINAL REPORT  
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# **MULTIMODAL PLANNING AT THE MEGAREGIONAL SCALE**



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**Federal Highway Administration**

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<b>16. Abstract</b> Megaregions are networks of metropolitan areas that share economic, environmental, and cultural features, as well as infrastructure and geographic connections. Since its inception in the 1960s, the concept of the megaregion has been gradually transitioning from planning theory into planning practice. This effort used a literature review, a scan of long-range planning documents, and case-study research to examine the state of megaregional planning and resulted in the development of regional long-range and local comprehensive planning frameworks, which address opportunities for local and regional agencies to address megaregional issues in their respective long-range plans.			
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## **MULTIMODAL PLANNING AT THE MEGAREGIONAL SCALE: EXECUTIVE SUMMARY**

This project, undertaken between June 2015 and May 2017, examined the influence of the megaregions concept on local and regional long-range planning efforts and identified opportunities for and barriers to using local and regional long-range plans to advance megaregional goals. This effort resulted in the development of planning frameworks, highlighting opportunities for these local and regional agencies to address megaregional issues in their respective long-range plans.

### **Why Megaregions?**

Megaregions are networks of metropolitan areas that share economic, environmental, and cultural features, as well as infrastructure and geographic connections. The megaregions concept is transitioning from planning theory to planning practice, in part due to a growing awareness that many systems, from transportation networks to watersheds, extend beyond the boundaries of a metropolitan area and can benefit from coordinated planning. The growing awareness of megaregions by planning practitioners is also related to forecasts that U.S. population growth and related economic activity will be concentrated within existing megaregions (America2050).

### **Megaregions and Planning Practice**

To determine the state of megaregional planning, the project used a two-phased approach consisting of a Literature Review and Case Study Research.

The Literature Review included the following steps: 1) reviewing existing literature and research on megaregions, intergovernmental cooperation, comprehensive planning, and state comprehensive planning enabling legislation for the 41 states located within the megaregions defined by the Center for Quality Growth and Regional Development at the Georgia Institute of Technology's defined; 2) identifying criteria for conducting a targeted scan of local and regional plans (to determine the extent of megaregional planning); and 3) conducting a scan of local and regional long-range plans from within megaregions to determine the extent to which local and regional planning agencies are addressing megaregional considerations in their planning.

The Case Study Research took a more in-depth look at two megaregions – Cascadia and the Texas Triangle. Within each megaregion, the methodology included the review of the long-range transportation plan of the largest MPO (Puget Sound Regional Council and North Central Texas Council of Governments), the comprehensive plans of the most- and second-most-populous cities within the MPO's jurisdiction, and the comprehensive plan of a peripheral city located in a county that does not contain either the largest or second largest city. The case study research also consisted of interviews with representatives from the MPOs and the cities.

The literature review and case studies highlighted the following about the current state of practice:

- Local and regional planning agencies are aware of the megaregional concept and their location within megaregions. However, relatively few incorporate megaregional issues into their plans. Megaregions are more likely to be addressed in regional long-range transportation plans required by Federal statute (23 USC §134 & 49 USC §5303) than in local comprehensive plans, and the megaregional focus is most often on transportation systems and infrastructure.

- Institutional support is a barrier to addressing the megaregional concept. This includes both a lack of federal and state enabling legislation related to megaregional planning, as well as the lack of formal governance structures.
- Local and regional planning agencies work on a broad range of issues within their jurisdictions, which may make it difficult to look beyond jurisdictional boundaries and add megaregional considerations to the mix.
- There is a lack of clear guidance for local and regional planning agencies on addressing megaregional issues in planning practice. This includes both broad guidance on addressing megaregional context and trends, and specific guidance for issues such as transportation, economic development, or water quality.

### **Regional and Local Long-Range Planning Frameworks**

Building on the results of the literature review and case study research, frameworks for incorporating megaregional considerations into regional long-range and local comprehensive plans were developed. Megaregional considerations addressed through these frameworks include freight and supply chain management, multi-modal connections, economic interconnections, and environmental systems.

Federal regulations define the scope of the MPO planning process and provide a set of 10 planning factors for long-range transportation plans ([23 CFR 450.306](#)). The [Regional Long-Range Planning Framework](#) includes recommended practices to address megaregional issues that relate to one or more planning factors. Here are select practices, illustrating the breadth of these recommendations:

- Plan for high-speed passenger rail (where feasible) and interregional electric vehicle networks.
- Coordinate interregionally on intelligent transportation systems and travel demand management.
- Coordinate interregional transportation investments with job clusters.
- Plan for interregional transportation access for long distance-commuters.
- Plan for interregional green infrastructure networks.
- Coordinate interregionally to improve air quality.

The [Local Comprehensive Planning Framework](#) includes recommended practices to address megaregional issues, grouped under the Principles, Processes, and Attributes of the American Planning Association's preexisting [Comprehensive Plan Standards for Sustaining Places](#). Here are select practices, illustrating the breadth of these recommendations:

- Plan for the mitigation of interregional natural hazards.
- Protect and manage interregional water resources
- Support interregional economies.
- Promote interregional access to parks and recreation facilities.
- Incorporate interregional considerations into assessments of strengths, weaknesses, opportunities, and threats.
- Coordinate with interregional planning efforts.

The megaregions concept is playing a growing role in planning practice. However, institutional barriers, such as a lack of enabling legislation and formal governance mechanisms, limit local and regional efforts to incorporate megaregional considerations into long-range plans. Additionally, local and regional

planning agencies also work on a wide range of issues, which can make it difficult for megaregional issues to rise to the top as a priority. Finally, state boundaries and the differences in state regulatory structures can create a barrier for operationalizing megaregional initiatives that cross state borders.

While there are barriers to addressing megaregions in planning practice, there are also opportunities. These include a growing awareness among local and regional planning agencies of the megaregions concept, and of their respective locations within defined megaregions. Planning agencies also recognize the potential of harnessing megaregional trends to gain a competitive economic advantage within the megaregion. Additionally, local and regional entities are collaborating around issues related to air and water quality and resiliency—issues that lend themselves to cross-boundary collaboration.

In order to fully leverage these opportunities, there is a need for more practical planning guidance on the concept of megaregions. The framework developed for this project takes a first step toward addressing this need, providing frameworks for incorporating megaregional and interregional considerations into regional and local long-range plans. Additional practical guidance is needed around specific topics such as transportation, the environment, and the economy, as well as on developing successful megaregional partnerships and governance and institutional support structures.

## **MULTIMODAL PLANNING AT THE MEGAREGIONAL SCALE: INTRODUCTION**

The concept of megaregions—networks of metropolitan areas that share economic, environmental, and cultural features, as well as infrastructure and geographic connections—is becoming increasingly prominent in planning conversations. There is a growing awareness that many systems and their impacts, from transportation networks to watersheds, transcend metropolitan area boundaries and require coordinated solutions. Megaregions also represent areas of population growth; the majority of U.S. population growth is expected to be concentrated within megaregions and their constituent metropolitan areas (America2050). As a result, the megaregion provides a useful construct for discussions about metropolitan interdependencies and coordinating planning activities beyond jurisdictional boundaries.

This project worked to characterize the current state of megaregional planning at the local and regional levels. This included identifying gaps in knowledge and practice, barriers to action, and opportunities to incorporate the megaregional concept into practice.

The project resulted in a framework, which looks at opportunities for planning agencies to integrate interregional and megaregional considerations into local comprehensive and regional long-range plans. By reexamining local and regional planning processes through a megaregional lens, this framework is intended to help planning agencies use interregional and megaregional themes, issues, and trends to inform concrete recommendations for local and regional policy and action.

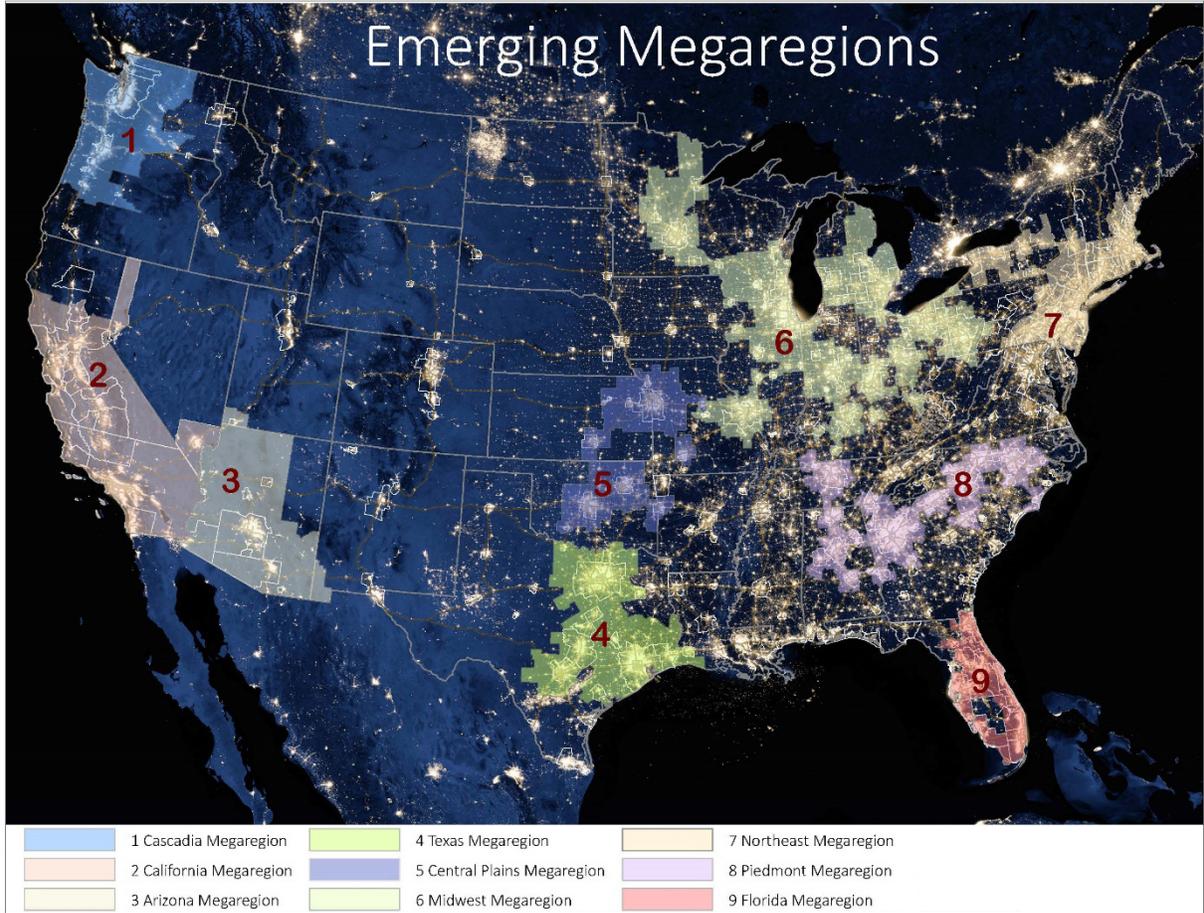
### **OVERVIEW OF MEGAREGIONS**

Megaregions are defined as networks of metropolitan areas that share economic, environmental, and cultural features, as well as infrastructure and geographic connections. Megaregions are where U.S. population growth and the related economic activity are expected to be concentrated through 2050 (America2050).

Most researchers point to French geographer Jean Gottman's 1961 study *Megalopolis: The Urbanized Northeastern Seaboard of the United States* as the origin of the concept of megaregions. Gottman used the term *megalopolis* to describe a continuous string of economically linked metropolitan areas spanning from the northern suburbs of Boston to the southern suburbs of Washington, D.C. The concept of megaregions has been slowly transitioning from planning theory into planning practice since the identification over the last half-century.

The Center for Quality Growth and Regional Development (CQGRD) at the Georgia Institute of Technology now identifies nine megaregions across the United States (Image 1) (Ross et al. 2009). And while megaregions have no legal status or official governance mechanisms in the United States, the concept of megaregions is empirically grounded and provides researchers and policy experts a framework for analyzing and discussing the increasing interconnectedness and interdependencies among metropolitan areas and regions and the related opportunities and challenges (Ross 2009).

Regional and local planning agencies are beginning to acknowledge their locations within megaregions as opportunities for collaboration at the megaregional scale in long-range planning. Regional-scale activities are impacted by trends and activities in neighboring areas, it is important to be aware of and proactively address these interregional and megaregional considerations.



**Figure 1.** The Center for Quality Growth and Regional Development identifies nine megaregions across the country (Image credit: Georgia Tech Center for Quality Growth and Regional Development).

**Table 1.** Glossary of Key Terms

<p><b>Regional</b>—Pertaining to a single metropolitan area or multijurisdictional planning agency.</p>
<p><b>Interregional</b> – Pertaining to two or more overlapping, adjacent, or proximate metropolitan areas.</p>
<p><b>Megaregional</b> – Pertaining to a network of overlapping, adjacent, or proximate metropolitan areas that share economic, environmental, and cultural features, as well as infrastructure and geographic connections.</p>
<p><b>Long-Range Plan</b>—An adopted statement of policy intended to guide collective decisions related to the growth and change of human settlements over at least a 20-year time horizon. The two most common, and influential, types of long-range plans in the U.S. are the local comprehensive plan and the regional long-range transportation plan. Every state in the U.S. has local planning enabling statutes that either authorize or require general-purpose local governments (i.e., counties, municipalities, and townships) to prepare comprehensive plans. Meanwhile, federal law requires all metropolitan planning agencies to prepare long-range transportation plans.</p>
<p><b>Local Comprehensive Plan</b> –The foundational policy document for a general-purpose local government (i.e., county, municipality, or township), which establishes a framework to guide public and private decisions about future growth, preservation, and change within a local jurisdiction over the next 20 to 30 years. The comprehensive plan covers a wide range of topics of community importance, including land use, transportation, housing, economic development, the environment, and intergovernmental coordination. It may also be called the general plan or the master plan.</p>
<p><b>Regional Long-Range Plan</b> – Refers to long-range plans prepared by metropolitan planning organizations (MPO) required under <a href="#">23 CFR 450.324(a)</a> or regional planning agencies, including the long-range transportation plan (LRTP) and regional comprehensive plans. The LRTP is prepared by the MPO and has a timeframe of at least 20 years and addresses transportation goals for the region. It includes both short-term and long-term strategies that consider how system intermodal transportation system components interact to efficiently move both goods and people and is updated on either a four- or five-year schedule depending on a region’s air quality attainment. Regional Comprehensive Plans, which address issues such as land use, transportation, housing, and economic development at the regional scale and can be used to guide the preparation of local comprehensive plans within the region.</p>

**Summary of literature review**

The first project task was a three-part literature review, which included the following steps: 1) reviewing of existing literature and research on megaregions, intergovernmental cooperation, comprehensive planning, and state comprehensive planning enabling legislation; 2) identifying criteria for conducting a targeted scan of local and regional plans (to determine the extent of megaregional planning); and 3) conducting a scan of local and regional long-range plans from within megaregions to determine the extent to which local and regional planning agencies are addressing megaregional considerations in their planning. The literature review was important to characterize how megaregional issues are being addressed in order to assess the current state of megaregional planning.

Through the literature review, 52 resources on megaregions, 18 resources on comprehensive planning practice, and 14 resources on intergovernmental cooperation were reviewed, as well as state planning enabling laws from the 41 states within megaregions. The literature on megaregions creates a consistent conceptual definition of the megaregion as a network of interconnected metropolitan areas, though there are multiple differing definitions of the geography of the megaregion. The two most prominent, and partially overlapping, geographically defined sets of megaregions are the Regional Plan Association's America 2050 megaregions, which includes 11 megaregions; and CQGRD's set, used here, which includes nine megaregions. The literature also focuses more heavily on several of these megaregions, including the Northeast megaregion, and the Cascadia, Piedmont, and Texas Triangle megaregions. The resources reviewed as part of the literature review also reflect that megaregions are being discussed as an important concept for planning, particularly transportation planning. However, the literature on comprehensive planning and intergovernmental cooperation currently does not provide practical guidance on how to incorporate these considerations into long-range plans or how to work to address the lack of formal governance structures at the megaregional scale.

Following the review of existing literature, a scan of 181 local comprehensive and regional long-range plans from within CQGRD's nine megaregions was conducted. These plans included all regional long-range planning documents from MSAs with populations greater than one million within the 10 megaregions and local comprehensive plans for all principal cities within the MSA. In addition, local comprehensive plans from other cities serving as hub and transfer points in the Highway Primary Freight Network<sup>1</sup> were included in the scan.

The review of plans found that relatively few local and regional long-range plans explicitly acknowledge the megaregional concept. It is more likely for the megaregional concept to be addressed in regional long-range plans than in local comprehensive plans, in plans from within well-established megaregions (e.g., the Northeast Megaregion), and in plans that were adopted within the last five years. In those plans that do address megaregional issues, transportation is the most frequently addressed issue, followed by the economy.

The findings of the literature review and scan of local and regional plans indicate that there is a gap in practice when it comes to addressing megaregions. There is relatively little in the way of planning guidance related to incorporating megaregional considerations into local and regional plans and relatively few planning agencies are addressing these considerations. When megaregions are addressed, the focus is generally on transportation issues or economic potential, while the literature indicates that there are also opportunities to address environmental and equity issues.

The literature also highlights barriers that exist to incorporating the megaregional concept into plans. These include questions related to megaregional governance and institutional support structures as well as a lack of federal and state enabling laws on megaregional planning. In summary, without governance or institutional support, megaregional planning is an ad-hoc or non-standardized effort.

The full literature review report is available [online](#).

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<sup>1</sup> This literature review was completed prior to the FAST Act, which repealed the Primary Freight Network and replaced it with the National Highway Freight Network.

## Summary of Case Studies

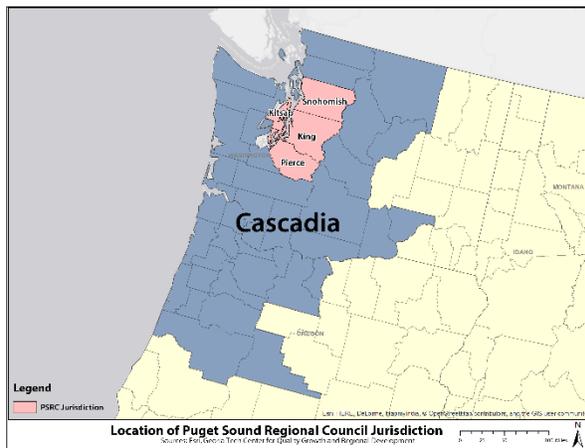
Following the literature review, case studies were developed to provide a more in-depth look at how regional planning agencies and local governments in Cascadia and the Texas Triangle megaregions are (or are not) addressing interregional and megaregional issues in their long-range plans.

Within the Cascadia megaregion, the case study focused on the Puget Sound Regional Council and the cities of Seattle, Tacoma, and Port Orchard, Washington. Within the Texas Triangle megaregion, the case study focused on the North Central Texas Council of Governments, and the cities of Dallas, Fort Worth, and Sanger, Texas. For each region, the interviews were conducted with planning staff representing (1) the MPO; (2) the most populous city; (3) the second most populous city; and (4) one city located entirely within a county that does not include either of the two most populous cities (i.e., a peripheral city within the MPO's jurisdiction). The peripheral cities were selected based on the results of a nonscientific online survey sent to the 130 peripheral cities within the two MPO jurisdictions.

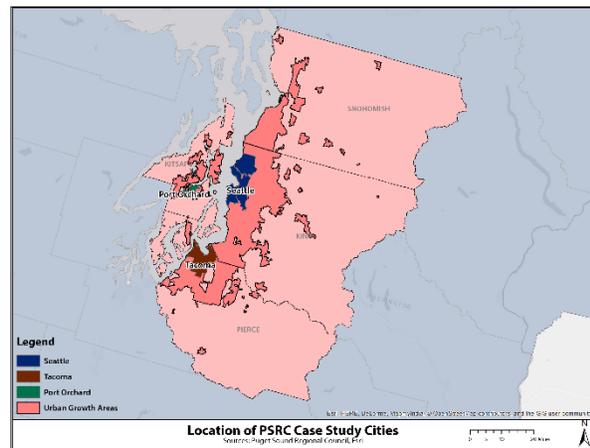
Planners in both regions were aware of the megaregional concept and saw value in it, but described limitations to addressing it in local and regional planning efforts.

### *Megaregional Planning in the Puget Sound Region*

The Cascadia megaregion extends from Portland, Oregon, to Vancouver, British Columbia. The megaregion is connected by the Interstate 5 corridor, a critical transportation link essential to its economic growth and success. The Puget Sound Region, which has the Seattle metropolitan area at its center, represents the largest of the three major metropolitan areas that comprise the Cascadia megaregion.



**Figure 2.** The Cascadia megaregion extends from Portland, Oregon to Vancouver, British Columbia. The Puget Sound Region is made up of four counties in the Seattle metropolitan area (Image credit: American Planning Association).



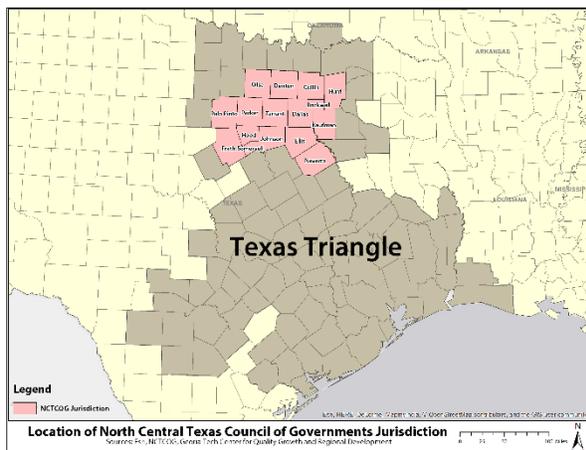
**Figure 3.** Local case study interviews focused on the cities of Seattle, Tacoma, and Port Orchard within the Puget Sound Region (image credit: American Planning Association).

Within the Puget Sound Region, there is growing interest at the local and regional levels for looking beyond traditional MPO boundaries and working in a larger context. Seattle, Tacoma, Port Orchard, and the Puget Sound Regional Council operate within an area that is increasingly both economically linked to and shaped by the regions outside of it.

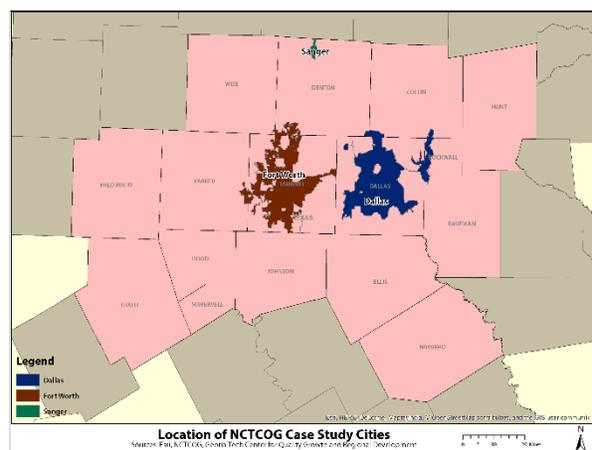
While the MPO and local planning agencies interviewed saw value in the megaregional concept, they described limitations related to applying it in planning practice. The case study subjects in this region plan within the context of Washington’s Growth Management Act, which promotes collaboration between neighboring jurisdictions within the region, but can create challenges for looking beyond the region. Interviewees noted differing governance structures (between the states of Oregon and Washington, as well as between those states and the Canadian province of British Columbia), and competition between regions as barriers to megaregional collaboration. The lack of institutional authority/governance support was also cited as a barrier to addressing megaregional considerations in local plans. Finally, the idea that planning is inherently local (i.e., the connections between planning and local experience are central to community engagement) also emerged as a challenge for addressing issues at the megaregional scale.

*Megaregional Planning in North Central Texas*

The Texas Triangle megaregion, includes the Dallas-Fort Worth Metroplex, as well as the metropolitan areas of Houston, San Antonio, and Austin, and extends into southern Oklahoma and western Louisiana. North Central Texas is a massive region surrounding the cities of Dallas and Fort Worth, located in the northern third of and within the Texas Triangle. It has an area greater than the state of Maryland and a population larger than that of 36 states.



**Figure 4.** The span of the Texas Triangle megaregion covers Dallas-Fort Worth, Houston, San Antonio, and Austin, as well as areas of southern Oklahoma and western Louisiana. The North Central Texas region is located in the northern third of the megaregion, around the Dallas-Fort Worth Metroplex (Image credit: American Planning Association).



**Figure 5.** The local case studies focused on the cities of Dallas, Fort Worth, and Sanger (Image credit: American Planning Association)..

Dallas, Fort Worth, Sanger, and the North Central Texas Council of Governments are all interested in working together to address megaregional issues; however, they identified challenges and barriers to doing so. These include a lack of formal governance mechanisms and political will, as well as the need to tackle regional challenges before scaling up. Representatives from these jurisdictions also identified staff capacity, resources, and funding as challenges.

### *Case Study Conclusions*

The communities featured in the case studies under the regulatory umbrella of the Puget Sound Regional Council and the North Central Texas Council of Governments provide insight into how planning agencies are considering the megaregional concept and the challenges that exist to actively taking action on megaregional issues in regional and local planning efforts. The local and regional planners interviewed cited a range of factors limiting their engagement around megaregional issues. These included the intertwined issues of funding and staffing capacity, knowledge among or engagement from policy makers, and structural differences in governance between different agencies. Geography also emerged as a challenge, as long distances and rural buffers between the major metropolitan areas within a megaregion can limit cohesiveness or the perception of shared challenges.

Key takeaways emerged from these case study conversations:

- Regional and local entities are aware of the megaregional concept and of their location within megaregions; however, issues of megaregional governance and ownership over megaregional issues, including the lack of a clear governance structure, can create barriers to interregional collaboration and action.
- Regional and local entities may seek competitive advantages within their megaregions.
- Local and regional priorities take precedence—as a result, the full range of issues that local and regional planning agencies are working on regularly may prevent them from adding megaregional issues to their agendas, particularly without a clear governance structure in place.
- While it can be difficult to look beyond local or regional boundaries, there is an increasing degree of interregional collaboration around issues of transportation, air and water quality, and resilience—those large-scale issues that cross jurisdictional borders.

The full case study report is available [online](#).

## **REGIONAL AND LOCAL LONG-RANGE PLANNING FRAMEWORKS**

The literature review and case study research informed the development of frameworks for incorporating megaregional considerations into regional long-range and local comprehensive plans. Megaregional considerations addressed through these frameworks include freight and supply chain management, multi-modal connections, economic interconnections, and environmental systems.

Federal regulations define the scope of the MPO planning process and provide a set of 10 planning factors for long-range transportation plans ([23 CFR 450.306](#)). The heart of the [Regional Long-Range Planning Framework](#) (summarized in Table 2 below) is organized under these planning factors. For each factor, the

framework highlights specific practices MPOs can use to address the issue at the megaregional or interregional scale. Additionally, the framework addresses other areas where MPOs can engage around interregional and megaregional issues through their work, including convening regional stakeholders, collecting and analyzing data, and providing technical assistance.

The [Local Comprehensive Planning Framework](#) (summarized in Table 3 below) builds off of APA’s preexisting [Comprehensive Plan Standards for Sustaining Places](#) and highlights specific opportunities for localities to incorporate background on interregional or megaregional issues, systems, and resources into their comprehensive plans, and to plan for local policies and actions that will support interregional or megaregional goals.

The regional long-range planning framework and the local comprehensive planning framework were tested against leading plans (see Appendix A).

**Table 2.** Framework for integrating interregional and megaregional issues, systems, and resources into regional long-range planning practice.

<b>Planning Factors</b>		
<b>1. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
1.1.	Address the concept of megaregions in the plan’s fact-base.	2, 3, 4, 5, 6, 7, 8, 9, 10
1.2.	Coordinate regional proposals within the region and interregionally.	2, 3, 4, 5, 6, 7, 8, 9, 10
1.3.	Plan for an interregional jobs-housing balance with equitable transportation connections.	5
<b>2. Increase the safety of the transportation system for motorized and nonmotorized users.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
2.1.	Plan for safe bike and pedestrian connections to interregional transportation systems.	1, 4, 5, 10
2.2.	Coordinate interregionally on unified or interoperable emergency communications systems.	3, 7
2.3.	Coordinate interregionally on safety communications and messaging.	3, 4, 7
2.4.	Plan at the interregional or megaregional scale for emergency evacuation.	4

<b>3. Increase the security of the transportation system for motorized and nonmotorized users.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
3.1.	Coordinate interregionally on transportation infrastructure security.	2, 7
3.2.	Coordinate interregionally on transportation system threat assessment.	2, 7
<b>4. Increase accessibility and mobility for people and freight.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
4.1.	Facilitate interregional coordination between transit providers.	1, 2, 3, 5, 7, 10
4.2.	Plan for high-speed passenger rail.	1, 2, 3, 5, 6, 7, 10
4.3.	Coordinate on interregional trail-oriented development.	1, 5, 6, 7, 9, 10
4.4.	Plan for interregional freight transportation and supply chain management.	1, 2, 3, 5, 6, 7
<b>5. Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
5.1.	Protect interregional water resources.	1, 9, 10
5.2.	Coordinate interregionally to improve air quality.	1, 10
5.3.	Plan for an interregional electric vehicle network.	1, 4, 6, 7
5.4.	Promote interregional environmental justice.	1
5.5.	Promote interregional access to public services, facilities, and health care.	1, 4, 6, 7
5.6.	Plan for interregional food systems.	1, 4
5.7.	Coordinate interregional transportation investments with job clusters.	1, 4, 6
5.8.	Align transportation infrastructure investments and capacity with interregional growth or decline projections.	1, 4, 6
<b>6. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
6.1.	Plan for interregional bike and pedestrian systems.	1, 2, 4, 5
6.2.	Plan for interregional transportation access for long-distance commuters.	1, 4, 5, 6, 7

<b>7. Promote efficient system management and operation.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
7.1.	Coordinate interregionally on transportation systems management and operations.	1, 2, 3, 4, 5, 8
<b>8. Emphasize the preservation of the existing transportation system.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
8.1.	Coordinate interregionally on transportation asset management planning.	1, 2, 3, 4, 5, 7, 10
8.2.	Coordinate interregionally on intelligent transportation systems and automation.	1, 4, 6, 7, 10
<b>9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
9.1.	Plan for interregional green infrastructure networks	1, 5
<b>10. Enhance Travel and Tourism</b>		
	<b>Practices</b>	<b>Other Relevant Factors</b>
10.1.	Coordinate interregionally on travel demand management (TDM).	1, 4, 5, 6, 7
10.2.	Coordinate interregionally on intelligent transportation systems (ITS).	1, 2, 4, 6, 7, 8

**San Diego (California) Association of Governments**

The San Diego Association of Governments (SANDAG) first convened its Borders Committee in 2001. One of five standing committees that advise the SANDAG Board of Directors on policy matters, the Borders Committee provides a forum to discuss areas of shared interest with the neighboring Tijuana-Tecate-Playas de Rosarito metropolitan zone in Mexico; the bordering counties of Imperial, Riverside, and Orange; and the 18 federally recognized tribes within San Diego County. The work of the Borders Committee relates to numerous practices outlined in *Regional Long-Range Planning Framework*, including 1.2, 4.1, 4.4, 5.1, 5.2, 6.2, 10.1.



**Figure 6.** SANDAG’s Borders Committee works to address shared challenges with the Tijuana-Tecate-Playas de Rosarito metropolitan zone in Mexico, as well as neighboring counties, and the 18 federally recognized tribes within San Diego County. (Image credit: Skalas/Creative Commons Attribution 2.0 Generic).

The Borders Committee plays a role in convening elected officials and stakeholders from the neighboring region and counties, as well as the tribal governments to address shared challenges, interests, and opportunities. Since 2004, areas of focus have included accessibility of jobs and housing, transportation, energy and water supply, the environment, economic development, and homeland security. The committee has also worked to address climate change, active transportation, and public health.

The Borders Committee has dedicated staff and funding. This allows the committee to allocate time and resources to collaborative efforts and projects. It also oversees two working groups: the Committee on Binational Regional Opportunities and the Interagency Technical Working Group on Tribal Transportation Issues.

A notable example resulting from the collaborative efforts of the Borders Committee is *the Otay Mesa-Mesa de Otay Binational Corridor Strategic Plan*, adopted in 2007. The plan addresses economic development, interregional travel, and transportation, and recommended improvements to the Otay Mesa-Mesa de Otay Port of Entry (the largest California-Mexico commercial border crossing) and cross-border and interregional public transportation. It also addresses advancing the planning and implementation of the Otay Mesa East Port of Entry. This future Port of Entry, which is also discussed in *San Diego Forward: The Regional Plan*, adopted in 2015, is intended to ease congestion for both passengers and freight.

Through its work, which includes providing policy recommendations to the SANDAG Board of Directors on issues related to interregional planning and oversight for activities that affect the region’s borders, the committee has been able to facilitate communication and successfully coordinate planning efforts that require collaboration and engagement from multiple agencies and jurisdictions. This, in turn, has resulted in binational and interregional planning efforts that address shared goals.

## **Southeast Florida Transportation Council, Miami**

The Southeast Florida Transportation Council (SEFTC) is a formal partnership among the Miami-Dade, Broward, and Palm Beach MPOs focused on coordinating multimodal transportation planning efforts across MPO boundaries. Since 2005, SEFTC has adopted two long-range transportation plans for the three-county planning area. The most recent version, the *2040 Regional Transportation Plan*, touches on many of the practices outlined in *Regional Long-Range Planning Framework*, including 1.2, 2.1, 2.2, 2.3, 2.4, 2.5, 4.1, 4.2, 4.4, 5.2, 5.7, 5.8, 6.1, 6.2, 7.1, 10.1, and 10.2.

While Miami-Dade, Broward, and Palm Beach Counties in Florida each has its own MPO, since 2000 the U.S. Census Bureau-defined Miami Urbanized Area has included substantial portions of all three counties, which is also considered a Transportation Management Area by FHWA. In recognition of this, the secretary of the Florida Department of Transportation sent a letter to the MPOs in 2003 asking them to consider a consolidation (CUTR 2010). In lieu of consolidating, the MPOs formalized a partnership through an interlocal agreement in 2005, and SEFTC completed its first coordinated long-range transportation plan in 2010.



**Figure 7.** Miami-Dade, Broward, and Palm Beach MPOs coordinated interregionally on the *2040 Regional Transportation Plan* through the Southeast Florida Transportation Council (Image credit: Paul Stuer/Creative Commons Attribution-Share Alike 4.0 International).

The update to this plan, the *2040 Regional Transportation Plan*, developed concurrently with the MPOs current long-range transportation plans and completed in 2015, defines a “regional” multimodal system across the three counties, consisting of a corridor network, transit vision, freight network, and greenways and trails network. The plan also includes a set of goals, objectives, and measures to guide the prioritization of partially funded and unfunded system projects.

The plan does not explicitly reference the megaregions concept, but because the planning area spans three separate MPO jurisdictions, much of its background information and many of its policy recommendations embody practices from *Regional Long-Range Planning Framework*. In fact, the plan itself is model for Practice 1.2: Coordinate proposals within the region and interregionally.

To highlight a few more granular, examples, the plan’s background and recommendations related to air quality (Practice 5.2) and intelligent transportation systems (Practices 2.1, 8.2, and 10.2) carry forward cooperative efforts initiated before the MPOs formed SEFTC. And its greenways and trail network, in

combination with an emphasis on evaluating the effects of transportation investments on first- and last-mile connections for pedestrians and bicyclists, neatly illustrates Practice 6.1: Plan for interregional bike and pedestrian systems.

Through the work of their formal partnership, the Miami-Dade, Broward, and Palm Beach MPOs have developed a long-range transportation plan that may serve as a model for interregional coordination for any conurbation with multiple MPOs but a single commuter shed. Furthermore, it demonstrates opportunities for interregional planning within the existing federal and state legal frameworks for long-range transportation planning, even when MPO consolidation is not politically or practically feasible.

**Table 3.** Framework for integrating interregional and megaregional issues, systems, and resources into local comprehensive planning practice.

<b>Comprehensive Plan Standards Guidance</b>	<b>Interregional/Megaregional Practices</b>
<i>Livable Built Environment</i>	Plan for high-speed passenger rail
	Plan for interregional transportation access for long-distance commuters
	Plan for interregional trail-oriented development
	Plan for the mitigation of interregional natural hazards
<i>Harmony with Nature</i>	Protect and manage interregional water resources
	Plan for the provision or protection of interregional green infrastructure
	Participate in interregional transportation demand management programs to reduce GHG emissions
	Prepare for the interregional effects of climate change
<i>Resilient Economy</i>	Support interregional economies
	Plan for interregional freight transportation and supply chain management
	Plan for interregional utility systems
<i>Interwoven Equity</i>	Promote interregional environmental justice
	Provide affordable housing
	Promote interregional jobs-housing balance with equitable transportation connections between jobs centers and housing to reduce the need for long-distance commuting
	Address interregional access to public services, facilities, and health care
<i>Healthy Community</i>	Coordinate with neighboring jurisdictions to meet or exceed federal and state air quality standards
	Promote interregional food security and access
	Address interregional access to parks and recreation facilities
<i>Responsible Interregionalism/Megaregionalism</i>	Include interregional data projections in local planning scenarios
	Promote interregional cooperation and sharing of resources
<i>Authentic Participation</i>	Participate in interregional planning efforts

<i>Accountable Implementation</i>	Establish cooperation with interregional planning efforts and initiatives
	Include reports on interregional efforts and initiatives in progress report
<i>Consistent Content</i>	Incorporate interregional considerations into assessments of strengths, weaknesses, opportunities, and threats
	Include interregional data and information in the plan's fact base
<i>Coordinated Characteristics</i>	Coordinate with interregional planning efforts

**CONCLUSION**

Since the Northeast Megalopolis was identified in 1961, megaregions have been transitioning from planning theory into planning practice. Local and regional planning agencies recognize and see value in the concept of megaregions; however, there are barriers to implementation. These include the lack of formal governance structures for addressing megaregional issues or challenges, as well as institutional support structures for supporting megaregional issues. Additionally, local and regional planning agencies also work on a wide range of issues, both those issues that fall within their mandates and those issues that are defined by their planning constituencies. This can make it difficult for megaregional issues to rise to the top as priorities. Finally, state boundaries and the differences in state regulatory structures can create a barrier for implementing megaregional initiatives that cross state borders.

However, there are also opportunities. Local and regional planning agencies are aware of the megaregional concept and of their position within defined megaregions. They recognize the potential of addressing the concept and harnessing megaregional trends to gain a competitive economic advantage within the megaregion. Additionally, local and regional entities are coalescing around issues related to air and water quality and resiliency—issues that lend themselves to collaborative efforts.

To fully leverage these opportunities, there is a need for more practical planning framework on the concept of megaregions. The framework and accompanying case studies developed for this project take a step towards addressing this need, specifically focusing on providing an outline for incorporating megaregional and interregional considerations into regional and local long-range plans. Additional practical guidance is needed, focused on addressing specific topics such as transportation, the environment, and the economy. There is also a need for more guidance focused on developing successful megaregional partnerships and what the governance and institutional support structures should look like.

## **APPENDIX A: TESTING THE PLANNING FRAMEWORKS**

The regional long-range and local comprehensive planning frameworks were used to analyze the presence and extent of megaregional planning concepts in two plans volunteered by project advisory committee members: *San Diego Forward: The Regional Plan* and *Seattle 2035*. These plans were selected as representative examples of contemporary long-range plans that largely satisfy the criteria for “high-quality” plans, as detailed in the emerging literature on plan-quality assessment (Berke and Godschalk 2009). That is, both plans were adopted within the last five years, and both plans were the result of extensive public engagement processes and rooted in a strong emphasis on implementation.

### **SAN DIEGO FORWARD, SAN DIEGO ASSOCIATION OF GOVERNMENTS**

The region includes 18 cities and San Diego County with a population of approximately 3.2 million people.

[www.sdforward.com](http://www.sdforward.com)

*San Diego Forward: The Regional Plan* is a unified update of the San Diego Association of Governments Regional Comprehensive Plan and the Regional Transportation Plan/Sustainable Communities Strategy.

*San Diego Forward* is organized into four elements (Policy, Sustainable Communities Strategy, Financial, and Action) and focused around the goals of providing “innovative mobility choices and planning to support a sustainable and healthy region, a vibrant economy, and an outstanding quality of life for all.” Policy objectives are focused around the six categories of habitat and open space preservation; regional economic prosperity; environmental stewardship; mobility choices; partnerships/collaboration; and healthy and complete communities.

The plan also has a strong focus on equity, which is defined in the plan as “an overarching goal that combines the concept of environmental justice, the federal laws in Title VI, the Americans With Disabilities Act (ADA), and National Environmental Policy Act (NEPA), and various other federal and state laws intended to promote an equitable distribution of benefits and burdens from SANDAG projects and programs.”

*San Diego Forward* touches on several of the planning practices outlined in [Regional Long-Range Planning Framework](#), as summarized below.

#### **1.1 Address the concept of megaregions in the plan’s fact base.**

*San Diego Forward* defines megaregions and addresses the San Diego region’s location within both the greater California megaregion and the greater binational megaregion. Within the California megaregion, the plan references freight movement in the five major metropolitan areas of Los Angeles/Long Beach, Sacramento, San Diego, San Francisco/ San Jose, and Las Vegas, Nevada. Within the binational megaregion, it focuses on the potential to leverage the cross-border relationships to enhance the region’s global competitiveness. It also addresses industry clusters, cross-border commuting patterns, and economic development in Northern Mexico. The plan contains the following action related to the region’s megaregional context: “Continue to leverage our crossborder economic relationships with binational and global interests to become more globally competitive and strengthen our megaregion.”

#### **4.2 Plan for high-speed passenger rail.**

*San Diego Forward* addresses the state of California's plans for a high-speed rail line connecting Northern and Southern California, linking San Diego, Los Angeles, San Francisco, and Sacramento. It notes that this project, the first segment of which is under construction in the Central Valley, will be funded and implemented by the state. The plan references the future Airport Intermodal Transportation Center, where high-speed rail will arrive and depart.

#### **4.4 Plan for interregional freight transportation and supply chain management**

*San Diego Forward* addresses the importance of the transportation system to moving goods and people through the binational megaregion and the role this plays in the region's economic health. It also addresses the Los Angeles-San Diego-San Luis Obispo (LOSSAN) Rail Corridor, which provides COASTER, AMTRAK, and Metrolink passenger rail service, but also serves as the main rail freight corridor for the region, connecting with the Los Angeles region.

#### **6.1 Plan for interregional bike and pedestrian systems**

*San Diego Forward* addresses the California Coastal Trail (CCT), which is comprised of a series of 1,300 miles of trails along the California coastline. The CCT is intended to extend continuously from Northern California to Southern California. SANDAG has begun to identify both existing and potential segments of the CCT through the "Feasibility Study for the San Diego Portion of the California Coastal Trail," which is included as an appendix to the *San Diego Forward*, along with related maps and materials.

#### **6.2 Plan for interregional transportation access for long-distance commuters**

*San Diego Forward* addresses interregional commuting, noting the region's location between Los Angeles to the north and Baja California to the south and the importance of an "integrated transportation network to effectively move people and goods within our region, in and out of our region, and through our region to the rest of the nation and around the world." It also addresses the impacts of interregional commuters from Imperial, Orange, and Riverside counties on the regional transportation network.

In addition, *San Diego Forward* includes increased track capacity and station improvements on the LOSSAN Rail Corridor, which is the second busiest rail corridor in the US and provides COASTER, AMTRAK, and Metrolink passenger rail service. *San Diego Forward* also addresses the Cross Border Xpress, which is an elevated pedestrian bridge for Tijuana International Airport passengers crossing the U.S.-Mexico border.

#### **7.1 Coordinate interregionally on transportation systems management and operations (TSM&O)**

*San Diego Forward* addresses multiagency partnerships for TSM&O. While the plan does not specify that these multiagency partnerships extend beyond regional boundaries, it emphasizes the importance of agencies collaborating "regardless of institutional boundaries" and uses the example of using real-time congestion data to improve signal timing across multiple agencies.

## **Regional Planning Agencies as Conveners**

In addition to the specific practices addressed above, *San Diego Forward* also includes an appendix (U14) focused on the work of its Borders Committee. This highlights the role that regional planning agencies can play as conveners, providing a forum to discuss interregional and megaregional planning issues and facilitating interregional planning efforts. The Borders Committee focuses on the international border with Mexico and the binational megaregion, the interregional borders with Orange, Riverside, and Imperial counties, and collaboration with the 18 tribal governments within San Diego County. Within this context, the committee's work has focused on the areas of jobs/housing accessibility, transportation, energy and water supply, environment, economic development, homeland security, climate change collaboration, active transportation, and public health.

The work of the Border Committee shows consideration of the following practices outlined in the planning framework:

- 1.3 Plan for an interregional jobs-housing balance with equitable transportation connections
- 2.2 Plan for safe bike and pedestrian connections to interregional transportation systems
- 4.1 Facilitate coordination between transit providers
- 5.1 Protect interregional water resources
- 5.2 Coordinate interregionally to improve air quality
- 6.1 Plan for interregional bike and pedestrian systems
- 9.1 Plan for interregional green infrastructure networks

## **CONCLUSION**

*San Diego Forward* addresses the San Diego region's context within two megaregions—the California megaregion and the binational megaregion. The plan also addresses interregional considerations. Through the work of the Border Committee, SANDAG is working to provide a forum to discuss megaregional issues and facilitate interregional planning efforts within the binational megaregion, interregional with neighboring counties, and with the tribal nations located within the county. Through this work, SANDAG is actively taking an interregional/megaregional perspective on a range of issues including transportation, economic development, and environmental challenges.

## **SEATTLE 2035 COMPREHENSIVE PLAN**

Seattle's comprehensive plan is a living document designed to guide decisions related to growth and change over the next 20 years. The city adopted the first version of this plan, *Toward a Sustainable Seattle*, in 1994 and amended it annually through 2015. At the time of its initial adoption, Seattle's comprehensive plan was among the first in the U.S. to use a sustainability lens for its policy recommendations, and as such, it received much attention in the planning literature. Perhaps the most distinctive feature of the plan is its Urban Village Strategy, which aims to concentrate a majority of growth in mixed use activity centers.

In 2012 APA's Sustaining Places Task Force spotlighted the plan in *Sustaining Places: The Role of the Comprehensive Plan* (PAS Report 567) as a potential exemplar of the task force's Best Practices Principles for Sustaining Places Comprehensive Plans. In 2014 APA selected Seattle as one of 10 pilot communities to help refine APA's Comprehensive Plan Standards for Sustaining Places. The city used the

draft standards to evaluate proposed updates to its comprehensive plan, and following this process, it adopted a reformatted and substantially updated version of the plan in late 2016.

*Seattle 2035*, the latest version of the city's comprehensive plan, has three major sections. The first section is a series of functional planning elements covering topics such as land use, transportation, housing, economic development, capital facilities, parks and open space, arts and culture, and community well-being. The second section of the plan contains goals and policies for 33 neighborhood planning areas, and the final section contains appendices with additional data and background information in support of the plan's policy recommendations.

As explained in the plan's introduction, *Seattle 2035's* vision is rooted in a set of Core Values: Race and Social Equity, Economic Opportunity and Security, Environmental Stewardship, and Community. And its policy recommendations reflect the principle of sustainability; are consistent with state planning enabling laws, the Puget Sound Regional Council's regional growth strategy, and King County's planning policies; and continue the implementation of the city's Urban Village Strategy.

While *Seattle 2035* reflects an acute awareness of regional issues and strong support for regional policies, it does not explicitly reflect any of the planning practices outlined in [Local Comprehensive Planning Framework](#). Given the plan's reputation and history of successful implementation, this lack of attention to interregional or megaregional issues and systems should not, necessarily, come as a surprise. Rather, it affirms the assessment that the overwhelming majority of cities located in megaregions have yet to translate the megaregional concept into local policy and action.

Seattle's comprehensive plan pioneered the practice of integrating sustainability principles into a local vision for long-term growth and change. While the latest version of this plan is largely consistent with APA's Comprehensive Plan Standards for Sustaining Places, it does not reflect an awareness of the city's position within a larger megaregion.

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