

# Creating Compact Communities

*A Discussion Paper about Community Resilience*

*November 2015*

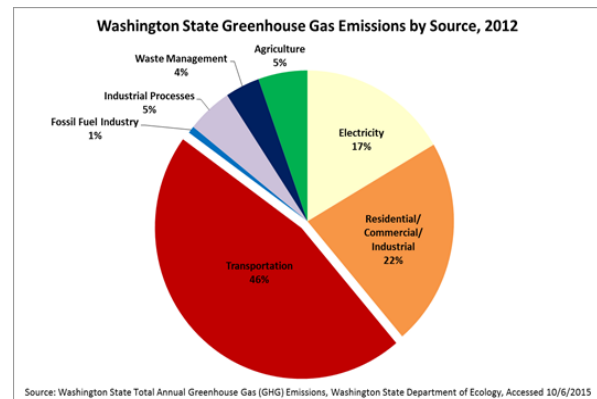
**Brief:** *Planning for compact communities is the centerpiece for achieving long-term GHG reductions in Washington State. Cities and suburbs have grown rapidly in the age of cheap oil and now consume 75% of the world's energy and produce 80% of the world's greenhouse gases.<sup>1</sup> Cities also represent the greatest opportunity to reduce per capita emissions through a wide variety of measures addressed throughout this Resilient Washington document. This section focuses on smart growth - land use planning that supports walkability and the use of transit, encourages infill and reuse, protects natural resources and open space, and fosters community resilience.*

## Problem

Emissions from our fossil-fueled transportation system is the dominant source of GHG emissions in Washington State. Transportation and land use decisions are closely linked. How many trips and what trips we make - the vehicle miles traveled (VMT) - is largely a result of local land use patterns. Smart planning for compact communities can thus play a key role in reducing our GHG emissions, even as our population grows.

The Washington State Growth Management Act (GMA) already enables, but does not require, local governments to promote concentrated city and town centers.

Existing state-mandated GHG and VMT reduction goals add to the importance of GMA requirements for making land use and transportation connections. In this context, the creation of dense mixed-use centers with access to robust multi-modal transportation options is now understood to be a central feature for achieving long-term climate action goals. The location of public facilities also influences VMT. The reductions in greenhouse gas and vehicle miles traveled that are needed to reach state-mandated goals will not be achieved without focusing a substantial amount of the projected population growth into city and town centers.



The use of fossil fuels for energy to create building materials for new residential, commercial and industrial buildings, as well as to heat those buildings, is another major source of GHG emissions. We need to recognize that existing buildings and neighborhoods represent important resources of embedded energy. As our population increases, we must maximize our use of these resources.

<sup>1</sup> Caroline Ash, et al., "Reimagining Cities", Science, special issue 319, no. 5864 (February 8, 2008): 739; as quoted in Peter Newman, Timothy Beatley, and Heather Boyer, Resilient Cities: Responding to Peak Oil and Climate Change, Island Press, 2009.

## Reducing Greenhouse Gas Emissions through Land Use Planning

Local land use planning provides opportunities to both minimize the number and distance of vehicular trips and maximize our use of energy.

Traditional transportation-based approaches to reducing GHG emissions include improved transit, increased ridesharing, and increased facilities for bicycling and walking. Alone, however, these approaches will not achieve the needed reductions. As described under Mobility, these multi-modal approaches must be combined with a compact pattern of land use and economic activity if VMT and associated GHG emissions are to be reduced.

Studies surveyed by the Urban Land Institute for their 2008 publication, *Growing Cooler*<sup>2</sup>, show that much of the expected rise in vehicle emissions can be curbed by growing in a way that will make it easier for Americans to drive less. In fact, the weight of the evidence shows that, with more compact development, people drive 20 to 40 percent less, at minimal or reduced cost, while reaping other fiscal and health benefits. Cities – both large and small – will benefit from the creation of compact activity centers where people can live, work, shop and play without the need for a

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<sup>2</sup> Reid Ewing, Keith Bartholomew, Steve Winkelman, Jerry Walters and Don Chen, *Growing Cooler: Evidence on Urban Development and Climate Change Executive Summary* (Washington, D.C.: The Urban Land Institute, 2008), pg. 4.  
[http://www.1kfriends.org/documents/Growing\\_Cooler\\_Executive\\_Summary.pdf](http://www.1kfriends.org/documents/Growing_Cooler_Executive_Summary.pdf) (accessed Sept. 1, 2008).

car trip for each activity. Dense areas better support transit and enhance the viability of carpools and vanpools by focusing origins and destinations. The commonly used measure of transit-supportive densities is at least 7 to 8 units/gross acre net housing density to support local transit service, with 10-20 units per acre closer to transit stations.<sup>3</sup>



### ***Promote Compact and Transit-Oriented Development in Local Plans and Policies***

In most metropolitan areas, the cost of housing declines with distance from job centers and other desired destinations, while the cost of transportation increases. Planners can influence the greenhouse gas impacts of long commutes by supporting the provision of mixed-income housing oriented to, or located within or near, employment and activity centers where dependence on vehicle trips can be reduced. Employment centers should also be oriented to transit.

### ***Strategically Locate Public Facilities***

Local governments have significant influence over the siting of schools, community centers, and parks which – depending on form and location – can be major trip generators. Facilities should

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<sup>3</sup> PSRC, *Vision 2040*, Page 81

be sited where pedestrian, bike, and public transit use can be maximized in order to reduce the number of vehicle trips generated.

### ***Promote Urban Infill and Reuse of Existing Buildings, Neighborhoods and Districts***

Existing structures represent large stores of embedded energy – energy used to create and assemble building materials such as concrete and steel. Where feasible, avoid the environmental costs of demolition and new construction, which can outweigh – or take a long time to recapture – the carbon emissions in new construction. A 2008 study from the *British Empty Home Agency* compares carbon dioxide emissions in new construction with the refurbishment of existing homes. The study concludes that when embodied CO<sub>2</sub> is taken into account, new, energy-efficient homes recover the carbon expended in construction only after 35-50 years of energy efficient operations.<sup>4</sup> Since the climate change crisis requires immediate action to reduce global warming gases, reuse and retrofits of existing buildings offer a more cost-effective and environmentally responsible way of reducing carbon emissions in the short term than demolition and new construction.

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<sup>4</sup> Building and Social Housing Foundation and Empty Homes Agency, *New Tricks with Old Bricks* (London, U.K.) Empty Homes Agency, <http://www.emptyhomes.com/documents/publications/reports/New%20Tricks%20With%20Old%20Bricks%20-%20final%2012-03-081.pdf>. 2008.

## **Strategies to Promote Compact Communities**

Following is a list of potential Planning and Regulatory strategies for cities and counties:

### **Planning Strategies**

***Add VMT reduction policies to county regional plans and require local comprehensive plans to be consistent with regional transportation plans.***

Require that GHG/VMT reduction goals be added to countywide planning policies and regional transportation plans (RTP) and that RTPs identify how land use policy, regulations, and multi-modal transportation networks will encourage fewer vehicle trips and support walking, biking, car sharing, and transit use.

***Educate your community on the benefits of compact communities.***

Citizens may have negative views on higher density and mixed-used communities. As a result, attempts to increase density may be met with stiff neighborhood resistance. The best way to counter this resistance may be to showcase the benefits of compact, mixed-use communities. There are many books, articles, and aids available to help make the case, such as: ULI's *Growing Cooler* (cited below) and *The Option of Urbanism*, Christopher Leinberger.

***Evaluate your local transportation system in order to identify ways to reduce vehicle trips.***

Understanding how the local transportation system functions is an important step in determining how to mitigate the impact of transportation-related GHG emissions. What percentage of auto-trips are single-occupancy vehicle (SOV) commutes? What are the barriers to increased transit and carpool/vanpool use? Where are parks, schools, jobs, and shopping located in relation to both new and existing housing stock? Evaluate what is needed to allow local residents access to schools, jobs, shops, services, and recreation.

***Apply best practices for compact & transit-oriented developments.***

Learn from business, housing, transit, and other related stakeholders about best practices; apply these lessons to siting and providing incentives for mixed-income housing oriented to employment and/or transit centers. Recognize the difference between “transit-oriented” and “transit-adjacent” development.



**Example:** City of Bellevue Bel-Red Corridor Plan  
[http://www.ci.bellevue.wa.us/pdf/PCD/Bel-Red\\_Brochure\\_2.pdf](http://www.ci.bellevue.wa.us/pdf/PCD/Bel-Red_Brochure_2.pdf)

**Example:** Shifting Suburbs – Reinventing Infrastructure for Compact Development  
<http://uli.org/wp-content/uploads/ULI-Documents/Shifting-Suburbs.pdf>

***Provide incentives for planned activity centers.***

Offer incentives that will attract development to planned activity centers, such as:

- 1) Zone for desired uses in activity centers as a “use-by-right”, avoiding discretionary approval processes;
- 2) Use SEPA exemption processes (RCW43.21C.229) for residential and mixed-use development within activity centers;
- 3) Streamline the permit review process for development that contributes to the evolution of identified activity centers and corridors between them. (Local Action)

***Target funds to planned activity centers/corridors.***

Support designation of regional “priority funding areas” where local governments have planned for compact development. Some areas may currently be without transit, but have short- and long- term goals for the evolution of focused growth areas that will support a range of multi-modal travel over time. Use infrastructure improvement and housing funds in activity centers and corridors where use of a car can be a choice and not a necessity. Prioritize transit accessibility and/or climate change criteria when allocating housing assistance funds.

### ***Re-evaluate land use patterns and tools.***

Consider new planning and zoning tools, such as form-based or hybrid zoning schemes that more directly implement smart-growth objectives rather than traditional Euclidian-based zoning. Re-evaluate traditional separation of uses into distinct use areas, and encourage more opportunities for mixed-use development on both a neighborhood and area-wide scale. Use processes and designs that encourage public interaction in neighborhoods.

**Example:** City of Portland support for grassroots efforts such as the City Repair project. <http://cityrepair.org/>



### ***Plan for density and mobility.***

Local land use plans should include minimum residential densities and shopping and service need locations where they can support and be supported by residences. “Big” solutions such as mass transit and more efficient vehicles are expensive and will not solve GHG and climate change problems without also providing more ways for people to avoid trips or reduce the length of their trips.

### ***Manage parking levels.***

Require parking management goals and policies in Regional Transportation Plans, set regional and local maximum parking standards, and require parking management within activity centers where transit and pedestrian and bike infrastructure will support use of alternative travel modes. Charging the true cost of parking will encourage fewer trips and allow higher density land uses that encourage walking. (See Donald Shoup’s book or article, The High Cost of Free Parking, at <http://www.uctc.net/papers/351.pdf>.)

### ***Actively promote focused development.***

Actively promote development in planned activity centers/corridors through a range of tools, including:

- 1) Incentives (e.g., aggregate land to facilitate development in planned activity centers; establish carbon credits for retrofits or development in these centers) and
- 2) Disincentives (e.g., create and implement a regional CO<sub>2</sub> emissions impact fee to internalize carbon impacts into development costs, thereby rewarding best development practices and raising the price of carbon-inefficient development). Use fee revenues to help fund transit, bicycling facilities, sidewalks and other pedestrian amenities, and similar projects in compact areas. Require mixed-income housing into such centers.

***Promote protection of historic buildings.***

Protect historic buildings by conducting inventories and evaluating older buildings to determine if they would meet national or local criteria for historic registers, and establish policies and ordinances for protection of historic buildings and districts. Review local codes to determine if energy-efficient refurbishing conflicts with historic preservation objectives, and consider revising these codes to protect historic resources while improving the energy profiles of preserved buildings.

***Support deconstruction instead of demolition.***

When renovating buildings for reuse or relocating existing buildings is not feasible, barriers to deconstruction should be eliminated - such as requirements that building remain in place until permits for replacement structures are granted. This practice compresses the time available for thoughtful deconstruction. A major obstacle to deconstruction and salvage is the high cost of labor. Partner with Community Colleges to develop training programs, as part of construction management curriculums, in techniques for deconstruction and reuse of salvaged materials. Provide contractors with information regarding local deconstruction and reuse options.

**Example:** City of Bellingham  
<https://www.cob.org/documents/planning/applications-forms/109-demolition-permit-information.pdf>

***Establish siting policies for community facilities.***

Incorporate policies into local and regional comprehensive plans that encourage accessibility to public facilities by multiple modes of transportation.

***Evaluate public facility sites based on climate change issues.***

Evaluate whether the siting of existing public facilities advances or impedes climate change mitigation objectives. Develop a long-term public facilities plan that is integrated with and guided by policies for mitigating climate change.

***Prioritize funding.***

Prioritize funding for public facilities using climate change criteria, such as the amount of greenhouse gas emissions expected to be attributable to a particular facility.

***Foster desired development with public investment.***

Washington law makes it difficult to use public dollars directly as redevelopment “seed money.” One way around this barrier is to make investments in major public facilities in a way that leverages private investment, including joint public-private partnerships, shared parking agreements, etc.

## **Regulatory Actions**

***Designate compact development areas.***

Designate local and regional areas planned for compact development and transit-oriented development. The process should include meeting with local developers, landowners, builders and architects to enlist their help in

revising outdated rules to encourage the kinds of development and redevelopment envisioned in plans.

***Amend regulations to support smart growth.***

Amend local regulations – including zoning and subdivision ordinances, parking standards, annexation rules, adequate public facilities requirements, and design guidelines – to facilitate smart growth through normal approval processes.

***Require affordable housing.***

Condition approval of large-scale residential and/or commercial developments on the provision of housing affordable to those earning a variety of incomes. Adopt inclusionary housing requirements in local zoning codes.

**Example:** City of Redmond Zoning Code 21.20 Affordable Housing  
<http://online.encodeplus.com/regs/redmond-wa/doc-viewer.aspx?secid=1089&keywords=affordable+housing+requirement#tocid-003.004>



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A Regional Coalition for Housing

***Establish TDR programs***

Establish local and regional transfer of development rights (TDR) programs enabling rural landowners to sell their development rights to urban developers through a market-based system. Consider infill areas as well as new master planned communities that may have more flexibility as major receiving areas. Effectively crafted, TDR programs can help reduce VMT by directing growth to compact, transit-served areas and away from low-density greenfield sites. Regional TDR programs can encompass more rural and urban areas, thereby providing greater market opportunities for TDR transfers.

**Example:** King County TDR Program  
<http://www.kingcounty.gov/environment/tewardship/sustainable-building/transfer-development-rights.aspx>

Snohomish County TDR Program  
<http://snohomishcountywa.gov/1523/Transfer-of-Development-Rights>



Photo Credit: Lisa Graff

***Create ordinances to discourage demolition and encourage reuse.***

Establish ordinances requiring developers who demolish buildings and rebuild new structures to meet additional, more stringent requirements. For example, San Francisco’s Green Building ordinance requires owners who demolish an existing building earn 10 percent more LEED credits on the new buildings than

would normally be required. Provide additional credits for deconstruction and reuse of salvaged building materials.

**Example:** San Francisco Green Building Ordinance.<sup>5</sup>

***Revise ordinances to address greenhouse gas reductions.***

Rewrite local zoning and subdivision ordinances to provide incentives for greenhouse gas reductions using a sliding scale of achievement levels.

**Example:** Sustainable Community Development Code prepared by Clarion Associates and the Rocky Mountain Land Institute.

<http://www.clarionassociates.com/service/land-use/>

***Promote adaptation and infill over greenfield development.***

Establish the reuse, relocation, and recycling of buildings as a strategy for addressing global warming in a local climate action plan. Evaluate existing buildings within areas planned for redevelopment to identify buildings that are functionally effective and can be adapted to new uses; create incentive programs that foster infill in existing districts over new development on greenfield sites.

**Example:** City of Tacoma Climate Action Plan.<sup>6</sup>

Climate Action Plan Progress Reports

[Tacoma's Climate Action Plan Final Report 2008-12](#)

[City of Tacoma Sustainability Accomplishments in 2011](#)

[Climate Action Plan Progress Report 2010](#)

[Tacoma's 2008 Climate Action Plan](#)

***Encourage Brownfield and Grayfield redevelopment.***

Advocate the reuse of remediated brownfield and “Grayfield” sites to reduce distances between destinations and relieve pressures for Greenfield development. Expand and improve current state and federal brownfields programs to further encourage development, continue addressing liability issues, increase project funding, and improve coordination with comprehensive planning and establish impact fees that encompass the true costs of extending infrastructure to greenfield sites.

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<sup>5</sup> San Francisco 2008 Green Building Ordinance, (2008): [http://www.sfenvironment.org/downloads/library/sf\\_green\\_building\\_ordinance\\_2008.pdf](http://www.sfenvironment.org/downloads/library/sf_green_building_ordinance_2008.pdf).

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<sup>6</sup> Green Ribbon Climate Action Task Force, Tacoma's Climate Action Plan (Tacoma, WA: City of Tacoma, [2008]), <http://www.cityoftacoma.org/Page.aspx?nid=674>.