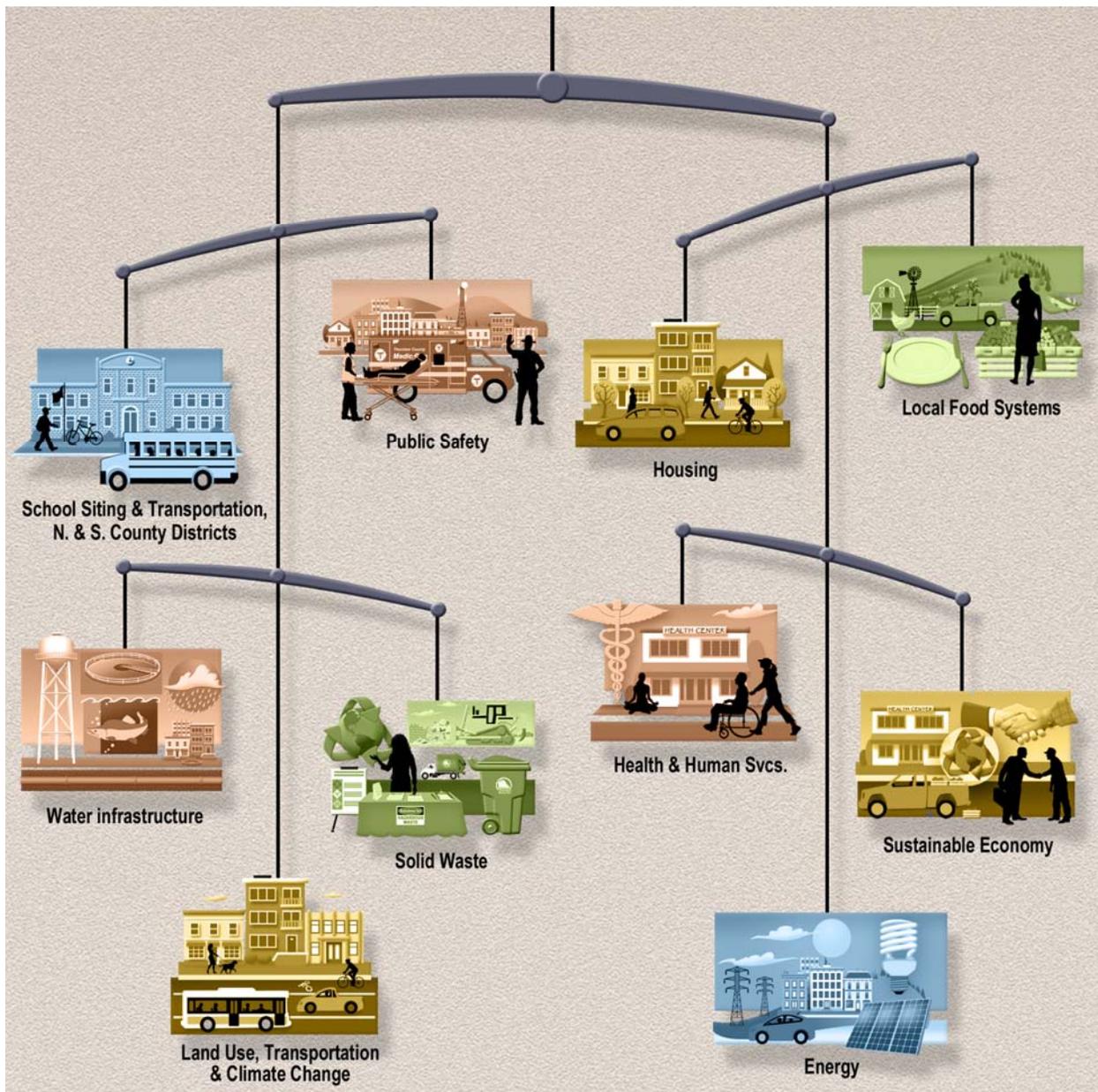


Sustainable Thurston White Paper Summaries & Emerging Themes





Sustainable Thurston White Paper Summaries & Emerging Themes

Let's plan together to create communities that are vital and resilient - with more housing and transportation choices and opportunities to live closer to jobs, shops or schools, that are more energy independent, and help protect clean air and water.

Sustainable Thurston is an opportunity to shape this region's future as well as the actions, and responsibilities to achieve it. This community conversation comes at a time when the issues of economic resilience and efficiency are foremost in our minds. Our region's households, governments, nonprofits and businesses are making the most of resources in order to maintain quality of life and build toward a more resilient economy, society, and environment.

The Vision

The vision for the Thurston Region will lay out concepts for how we want the region to look, function, and feel in the next 20-30 years. This vision will serve as a guide as we update our local and regional plans.

DID YOU KNOW ...

Over 180 people representing 93 organizations have been involved in the Sustainable Thurston project.

The next step is to hear from the community.

Follow the process by tuning in at:

www.sustainablethurston.org

Understanding Current Conditions

To build a framework for this community visioning process, Sustainable Thurston convened a series of expert panels and workgroups to answer some basic questions: *What is working? What are the challenges? What are the opportunities?*

Each group presented their findings to the Sustainable Thurston Task Force in a series of meetings in fall 2011 and winter 2012.

Topic Panels

The panels and workgroups explored a diverse set of topics all essential to understanding community sustainability. Visit the project website www.sustainablethurston.org to view their presentations to the Sustainable Thurston Task Force and White Papers.

- [Economic Development](#)
- [Housing](#)
- [Health and Human Services](#)
- [Energy](#)
- [Public Safety](#)
- [Land Use, Transportation and Climate Change](#)
- [Water Infrastructure](#)
- [Solid Waste](#)
- [Local Food Systems](#)
- [School Siting and Transportation, North and South County Districts](#)

Their work should be considered a place to *start* our community conversation.

Themes that Emerged from Panel and Workgroup Discussions

- **Collaboration & Cooperation is Essential**

This theme ran across all topic areas and panels. It was cited as one of the things the region does well and essential to using both human and money resources efficiently. There was agreement that collaboration and cooperation must include a broad range of partners, individuals and organizations ... *Public – Private – Non-profit – Community*.

- **Resources are Getting More Limited – Be Efficient – Leverage What We Have**

Every panel or workgroup had a similar message. The sources of funding we've relied on in the past cannot be counted on in the future. This includes funding for governments services or infrastructure like roads, grant assistance to non-profits such as the food bank, community services, or housing providers - or financing for new businesses. We need to be more efficient and leverage the resources we have. This is important as we make sure that basic needs are met for our community.

- **Protect What Matters**

We all love things about our community - like the Puget Sound, or neighborhood gathering places. We need to identify the things we value, find out what these places need to be healthy, plan and take action to ensure their long term health.

- **Everything Is Related**

Understanding the connections and communicating with each other as decisions are made will lead to better decision making. This applies to individual, business and government decisions. Consideration of choices and full costs will be critical.

- **Choices Matter to Achieving Community and Household Resilience**

Population forecasts predict that our region will grow by some 170,000 people in the next 30 years. Understanding the consequences of our choices to household and community resilience is key. The more we work together as individuals, as businesses, and as governments – the more successful we will be planning the future, taking action, and measuring progress. We can leverage growth as it occurs to expand our choices in a way that will ensure both a healthy environment and a strong economy.



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Land Use / Transportation / Climate Change

The viable transportation options available to a community are directly related to land use and how that community is built and grows. Community visions for the region's city centers and urban areas, suburban residential neighborhoods, small cities, and rural lands shape current and future travel choices.

How We Grow Matters

If the regional vision is to increase opportunities for transit, biking, and walking then growth is the resource that can help to make that happen. Today's predominately suburban land use patterns will continue to be auto-dependent for the foreseeable future. However, successfully attracting growth into existing transit corridors and encouraging development of under-utilized urban land into vibrant districts that offer an array of activities and services within walking distance of high-quality mixed-income housing will enable more people to reduce their dependence on driving. Not everyone will want to live in these areas. That's okay, because the region will continue to offer a full array of lifestyle choices. Urban living is but one choice in a diverse, resilient region.

DID YOU KNOW...

The share of residential growth located on key transit strategy corridors and as urban infill is only a tiny fraction of regional growth, with most going into suburban residential neighborhoods. Suburban land use patterns cannot support an urban transportation system.

We're Not Starting From Scratch



For well over 100 years, major decisions about transportation and land use have shaped issues and opportunities faced by Thurston County residents and businesses. From where to locate the state capitol to how to align rail and interstate routes, regional growth patterns reflect major decisions of the time. In the early 1990s, hundreds of people came together to share their vision for the region's future through the Growth Management Act. Their input resulted in local comprehensive plans and regional transportation plans that have guided policies and investments for 20 years. It's time to revisit those visions and make any necessary course corrections so that growth over the next 30 years meets the region's needs today, and in the future.

Today's Decisions Shape Future Choices

While the rest of the region's land use vision is being realized, urban living is not a readily-available lifestyle choice in Thurston County. This is of particular concern for retirees looking to downsize, for younger people and entrepreneurs attracted to urban lifestyles, and to others looking for this lifestyle choice. Creating more truly urban options is good for the rest of the region, too, relieving growth pressures on existing residential neighborhoods and rural lifestyles, and keeping per capita costs of government services as low as possible. In an era of increasingly volatile fuel prices, more people will want or need a lifestyle choice that doesn't commit so much of the household budget to basic transportation costs associated with driving.

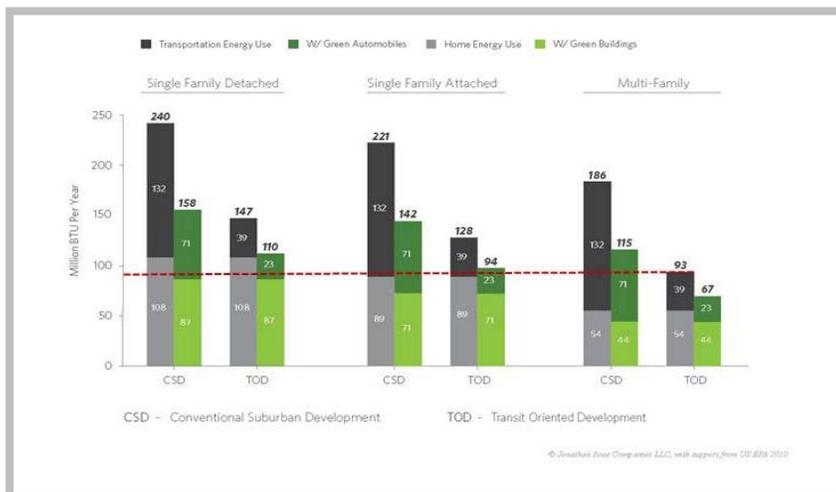
DID YOU KNOW...

Households in close-in urban neighborhoods spent an average of \$200 per month on gasoline in 2008, while those living in southeast rural Thurston County spent on average \$537 per month. With gas prices getting more volatile this can severely impact household budgets when driving is the only travel choice.

Making Connections

The single most important factor determining household impacts on climate change is where we live. Some locations are more energy efficient than others, regardless of home energy improvements or "green" vehicles.

The chart below illustrates that a household living in a high density multi-family dwelling unit – apartment or condominium – which is located in a transit-oriented district will consume less energy (as measured by BTUs or British Thermal Units) than the greenest, most energy efficient home located elsewhere – even if that household relies on a hybrid or electric car for transport. When home energy and transportation energy consumption is combined, it is difficult to get "greener" than living in a condo or apartment in a close-in urban neighborhood with good transit service and excellent access to close-by businesses and services, even if you drive.



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HOUSING

Let's plan together to create communities that are vital and resilient - with more housing and transportation choices, and opportunities to live closer to jobs, shops or schools, that are more energy independent, and help protect clean air and water.

How we grow matters

Things are changing in Thurston County's housing market. The recession has caused an increase in the number of renters. Adult children are moving back in with their parents; when they do leave, they are showing a preference for urban lifestyles. More households are finding it difficult to meet their basic needs such as food, housing, transportation and utilities. Looming on the horizon is the retirement of the baby boom generation. People want choices. Larger families will still choose single family homes. Singles, empty nesters and seniors all fuel a growing demand for urban living. Apartments, condominiums, townhomes, homes on small city lots or accessory units – all within walking distance of stores, bus stops, and jobs – will be in high demand. All of this is important as we plan for the anticipated 80,000 new homes forecast for this region.

DID YOU KNOW ...

There are around 108,000 housing units on the ground in Thurston County today. 80,000 new units mean that over 40% of the homes available in 2040 will be built between now and then.

We're not starting from scratch

We are fortunate in the Thurston Region to have a large number of organizations working together on housing issues. In the Sustainable Thurston project, governments, non-profit providers, local financial institutions and developers are all working together to develop a Regional Housing Plan. The Plan will be built from the communities' visions – both the existing visions in local plans, and a vision for the future that takes into account the changing housing market. We face challenges today and will face more in the future. Working together we can seize opportunities that assure availability of a full range of housing types and locations – especially for those who choose less vehicle dependence.

Choices made today will shape our future

We have an opportunity to build a vision for our community. This vision will help us take the next steps to ensure that we head in the right direction. Housing – and where people will live – will have a tremendous impact on the resilience of our community. Not everyone will be self-sufficient. Seniors in particular - will benefit from easy access to goods and services – including medical services – to continue to have an independent lifestyle. People with tight household budgets will welcome chances to reduce their transportation and utilities costs. Governments on tight budgets will welcome the chance to reduce municipal expenses.

DID YOU KNOW ...

People who live near our city centers save on average \$3,000 to \$4,000 a year on transportation costs compared to those living in the rural county. They have more choices on how to travel, and live closer to jobs, goods, and services.

Making Connections

Housing is a basic need. People need a place to live – a roof over their head. They also need access to jobs, food and other services. When housing costs exceed 30% of a household budget, or housing plus transportation costs exceed 45% - a household may not have enough money left to meet their other basic needs such as food.

How housing is built, and where it is built has direct influence on health, household energy use and economic resilience of lower income households. Where housing is located also has an impact on emergency response time.

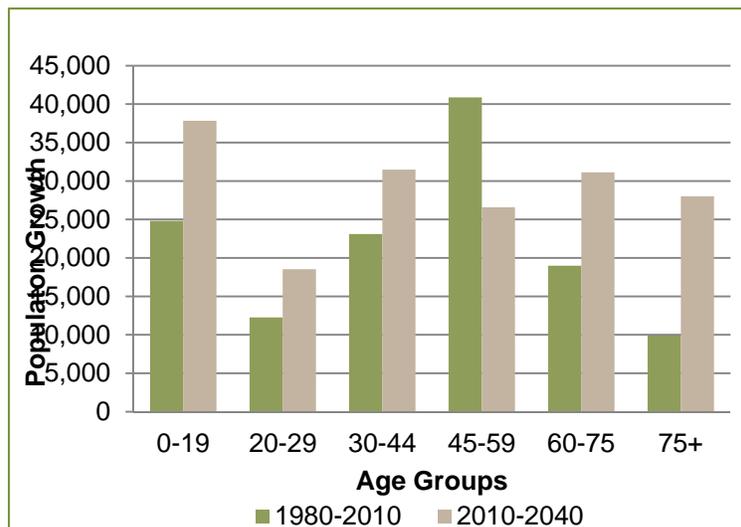
Housing is an essential element of our economy – as an industry, as an attractor for the workforce, and as a creator of demand for goods and services. Access to jobs builds a healthy economy and makes it possible for people to afford housing.

How housing is built, and where it is located, has a large influence on household energy



usage. Residential uses account for 21% of energy consumption in the U.S. An additional 18% is consumed by transportation-related fuel use by cars.¹ Housing is a large part of the built environment. Managing growth is one of the keys to keeping our groundwater, streams, and the Puget Sound healthy.

In short, housing is connected to all elements of our community.



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¹ Annual Energy Outlook 2006 http://www.scag.ca.gov/rcp/pdf/publications/1_2006AnnualEnergyOutlook.pdf; 2005 Energy Use by Transportation Mode; http://www.rita.dot.gov/publications/transportation_vision_2030/html/figure_02.html



Sustainable Economy

Let's plan together to create a vital, resilient and sustainable economy that exists because of - and in order to - support healthy social and environmental systems.

Defining Sustainability

Sustainable economies exist because of, and in order to support healthy social and environmental systems. While the definition of a sustainable economy can be parsed many ways, the Blue Ribbon Panel that penned this draft, believes that the Oregon Economic Council provides a concise and apt description: “A sustainable economy is one in which our resources are not used up faster than nature renews them and benefits are shared equitably. Profitability is the product of thriving ecosystems and communities. Our shared assets are not sacrificed for short term profit.” This definition is an important macro-level understanding of sustainable economies. But the Blue Ribbon Panel, when placing the definition at the local level, realizes that essential components of a sustainable economy are uniquely interwoven within the micro-economic climate. One essential component cannot be discussed without a conversation of the other elements of the region. As such locally, the Thurston regional sustainable economy concepts are based on an integrated-systems core balancing social, economic, and environmental factors. If any one of these factors becomes too much of a focus, or area of civic emphasis, the remaining elements will become less effective and may become a detriment to the long term economic health of the local economy.



Regional Components

A local sustainable economy incorporates an identified twelve essential components – which are identified into two basic categories. The first six are identified as being the most central to the economic core of the community. Each essential component is described in greater detail by defining some of the important elements and why each matters.

Essential Components	Inclusive Elements	Why it Matters
Physical Infrastructure	Housing, Roads/Bridges, Utilities, Rail Preservation, Port, Fiber Telecommunications	Any region that seeks to attract new economic activity and maintain current businesses must have systems in place to ensure reliable services and resources.
Coordinated and Efficient Governance	Streamlined Permitting, Regional Stewardship, Shared/Defined Priorities, Tribal Partnerships, Predictable Consistent Process, Public/Private Partnership, Coordinated Integrated Basic Services	Predictable, reliable, and efficient administration has the ability to be the catalyst for both recruitment and retention of business activities.
Adequate Employment Lands Supply	Zoning, Critical Areas, Distinct Vibrant Commercial Areas, Growth Management, Shorelines	It is critical that the region have a strong and consistent approach to protecting employment bearing land as an important component of long-term economic health.
Sector Diversity	Manufacturing, State/Government Capital Employment, Retail, Service Industry, Creative Class, Healthcare, Agriculture	Sector diversity incorporates the philosophy that a region has the capacity and ability to provide employment opportunities for a wide range of talents and human capital.
Progressive Education System	Childcare Access, Early Childhood, K-12 and Higher Education (Including Extended and Online Education)	One of the primary factors cited by the private sector when locating or expanding their operation is the labor market. It is not the size of the pool, but rather the availability and readiness of technical and professional skills necessary for their operations.

Break it Down

While the above identified components are important and most central to the economic core of sustainability, a truly sustainable economy requires the presence and viability of several other key components. The following components are inextricably linked to the all of the above essential components. These additional components are:

- Social infrastructure
- Access to capital
- Strong municipal revenue base
- Workforce/industry balance
- Healthy environment
- Targeted economic development programs

The Blue Ribbon Panel recognizes the ideal of a “sustainable economy” is based on a fragile premise. Pushing too hard in one area can result in unintended consequences in another. A sustainable Thurston County economy will require recognition that not all resources can be replenished. We cannot place victories today over the opportunity for future generations. We must also find a way to support economic progress. Without it, our social and environmental health is placed at risk. When played correctly, this balancing act can produce the future we plan for, not in the one we get if we don’t.

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WATER INFRASTRUCTURE

Let's plan together to create communities that are vital and resilient - with more housing and transportation choices, and opportunities to live closer to jobs, shops or schools, that are more energy independent, and help protect clean air and water.

How we grow matters

Over the next 30 years, Thurston County is expected to grow by 170,000 additional residents. This will strain one of the things that people value most about the region: our water resources. The region's quality of life is directly related to water. Groundwater provides the primary source of drinking water for residents in Thurston County, and surface water bodies provide opportunities for both recreation and sustenance. Planning is essential so that our future water infrastructure can maintain this 'quality of life' asset.

The term 'Water Infrastructure' includes drinking water, wastewater, reclaimed water, and stormwater infrastructure. Each of these plays an important role in maintaining local water resources. However, not all areas have or will have the same types of water infrastructure. Urban growth areas where the population densities are highest will have the most water infrastructure (sewers, public water system, and stormwater treatment). Those areas with the least amount of water infrastructure will be rural acreage with individual or private systems.

DID YOU KNOW ...

A house with a properly functioning septic system generates the same level of nitrogen as eight houses on sewer connected to a wastewater treatment plant.

We're not starting from scratch

Many local and state regulations seek to protect groundwater, surface water, and aquatic resources from development impacts. These regulations are found in the critical area regulations, drinking water standards, stormwater regulations, and wastewater codes. However, these regulations are only one piece of a larger water puzzle. Since water resources do not conform to jurisdictional boundaries, protecting water resources will require cooperation and collaboration between the local, state, and tribal governments.

Choices made today will shape our future

The Thurston County region currently benefits from past decisions to build stormwater facilities, wastewater treatment plants, and drinking water treatment facilities. These essential pieces of infrastructure require years to plan, fund, and construct. As we move to meet the needs of future populations, the area will face tough choices about how to grow, where to grow, and where publicly funded projects can provide the most benefit.

DID YOU KNOW ...

Residents who live in typical low density, single family residences use more than double the amount of water used by residents in higher density urban subdivisions.

Making Connections

Water infrastructure is a finite resource. Providing high quality facilities for the anticipated future population will come at a substantial cost – a cost necessary to protect water quality and water features that individuals enjoy throughout our region.

The location of future water infrastructure (such as wastewater treatment facilities) will influence the future land use and transportation choices in the region. Areas with wastewater treatment facilities will be able to accommodate more people and jobs without significantly impacting water sources. The large number of existing septic systems and lack of sewers will make it difficult for the rural areas of Thurston County to support major population or economic growth without adverse impacts to water supplies or aquatic resources.

Within small communities, future population and economic growth will be linked to the availability of wastewater treatment facilities. While constructing new wastewater facilities may be desirable for some communities, such as Bucoda and Rainier, these facilities are often too expensive without federal or state grants and loans. Local government access to financial resources in the future will be an essential component of community water infrastructure plans and facilities.



Though the environmental benefits of water infrastructure facilities may go unnoticed or undervalued by many residents, they are essential none the less. Education about our water resources will help communities see the connections between investing in these new facilities and their environmental benefits. Community support is essential as the region seeks to maintain its existing infrastructure and build new facilities to meet anticipated growth over the next 30 years.

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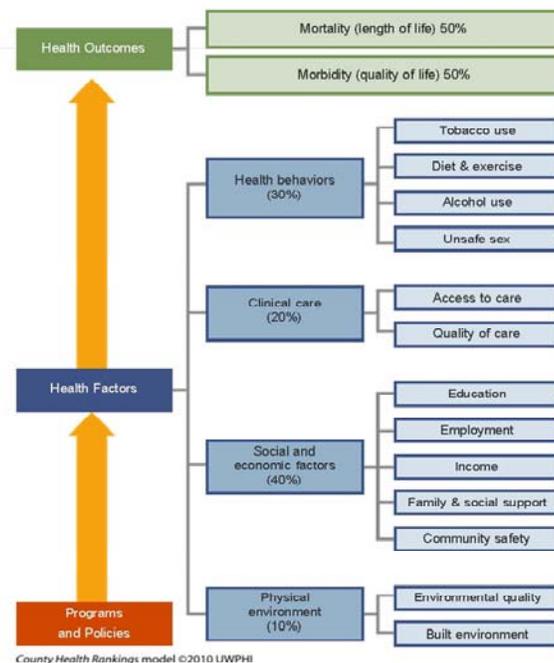


HEALTH & HUMAN SERVICES

Let's plan together to create communities that are vital and resilient - with more healthy choices for physical activity, clean air and water, nutritious food, and opportunities to get appropriate care for physical or behavioral problems for ourselves and our loved ones.

How we grow matters – investment matters

Physical, mental, and overall health is determined by a variety of factors: physical environment, social and economic factors, availability of clinical care, and health behaviors.



Investment in health and human services infrastructure and programs will avoid costs in education, jails, and health care. Such investments are necessary to sustain our community well being and our individual health.

We're not starting from scratch

There are many health and human services providers in our community doing great work and contributing to the betterment of Thurston County. Systems in place include supportive and cooperative agencies and individuals – these contribute positively to the health of our community.

Choices and investments made today will shape our future

We have to develop new and better approaches and address the challenges they will bring. Thurston County has one of the highest tobacco use rates among adults and youth in the State of Washington. Many of our children and our adults are overweight and at risk for

developing chronic diseases. Our water quality is at risk of contamination because of land use activities. We do not have enough health care providers for the population, and this fact limits our ability to care for those in our community with the greatest risks of disease and disability.

While we have systems in place to support children and young people, our community must advance a stronger focus on older people (due to our aging population) because of the looming impact of this demographic shift on the health care and human service systems. We need to continue to advance community efforts to move toward prevention-focused systems to improve health and decrease costs for service delivery in health and human services.

Making Connections: ***Investment in Health is basic – and intertwined with all other aspects of our community:***

- Income is a predictor of health status; improving median income is associated with improved community health status.
- Higher educational attainment is also a predictor of improved economic and health status.
- Stable housing is essential for health; decreasing homelessness and improving housing stock will improve overall community health status.
- Clean drinking water is basic to health; people expect their tap water to not cause disease.
- Safe, affordable, nutritious food is basic to health; people expect their food to not cause disease.
- Increased use of community transportation systems (especially walking, bicycling and transit) will improve overall community health status by increased physical activity.
- Land use activities have direct impacts on ground and surface water sources used for drinking water, food production and recreation, which is expected to be clean and not cause disease.
- Improved land use (such as greater density and mix of uses) is also associated with increased physical activity.
- Activities that limit energy use and lessen impact on climate change will lessen the impact on public health emergencies including those caused by storm events and disease-carrying insects and animals.



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PUBLIC SAFETY

Let's plan together to create communities that are safe, vital, and resilient – with consideration for how to efficiently provide safety, security and emergency services as we grow.

How we grow matters

Part of the reason people find the Thurston County region a good place to work, live and raise a family is that we enjoy a strong sense of safety. It contributes to the high quality of life we are fortunate to experience. It is important we all ask:

How do we foster and uphold our safety and security as our region grows?

DID YOU KNOW ...

The number of commissioned police officers per thousand residents in the Thurston region has gradually diminished over the last five years, placing increasing demands on existing officers?

We're not starting from scratch

One of the Thurston County region's greatest strengths is the high level of cooperation and collaboration among its public safety and emergency service agencies. Mutual aid agreements extend coverage, resources, and back up between neighboring jurisdictions. Good, frequent and regular communication exists among staff and policy makers. This collaboration fosters collegial relations, including expanded support for smaller jurisdictions.

Already in place are protective measures such as building codes, comprehensive plans, and critical areas ordinances that help keep people safe and protect important natural resources.

Choices made today will shape our future

Investments in public safety will position the region to have the capacity to respond to multiple scales of emergencies from individual crises to region-wide disasters. The following is only a sample of the public safety issues the region faces:

- A growing urban environment will require more sophisticated public safety wireless communications technology to overcome transmission barriers created by higher building densities and certain construction materials
- Narrower streets and more compact development may require newer residential developments to include fire and safety protection elements such as sprinkler systems and compel fire protection agencies to deploy smaller and swifter vehicles than the larger fire engines in use today

DID YOU KNOW ...

In Thurston County, 56 of 550 firefighters are paramedics and over 90% are Emergency Medical Technicians?

- Declining property values, dwindling budgets, and increasing demands for service will call for fire protection and law enforcement agencies to examine approaches to share resources and find sustainable ways to fund public safety
- Cuts to basic health care services and social safety net programs may lead to increases in non-emergency 9-1-1 call volumes
- Households must continue to prepare for the unexpected. Major disasters with disruptions to utilities and transportation networks require that people take steps to increase their level of self-sufficiency and neighborhood collaboration



Making Connections

Safety must be incorporated into every aspect of community planning, whether we're considering development, public health, housing, industry, transportation, or schools.

People expect professional emergency services to respond rapidly to their needs in a life threatening situation. Where the population lives—in the cities or in the country—how our communities' streets, utilities, and communication infrastructure are developed, and the resources we dedicate to training and equipping first responders, all affect how quickly and effectively public safety professionals can respond to help people.

Planning how our communities are built and the location of critical facilities are key factors to consider in making our neighborhoods, towns, and cities more resilient to the destructive effects of natural hazards such as severe winter storms and earthquakes.

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SCHOOLS & TRANSPORTATION

Let's plan together to create communities that are vital and resilient - with more housing and transportation choices, and opportunities to live closer to jobs, shops or schools, that are more energy independent, and help protect clean air and water.

How we grow matters

Low density suburban and rural housing and large acreage schools – without safe walk and bike routes - make travel to school vehicle dependent. The result is that parents driving students to school account for:

- 25% of morning peak hour traffic
- A decrease in safety, student health, readiness to learn, and air quality
- A lack of knowledge and experience needed to be safe pedestrians and cyclists

The question is - How can we accommodate school program and transportation needs as efficiently as possible as funding becomes more constrained? How can we offer more students the opportunity to walk, bicycle or take a bus to school?

DID YOU KNOW ...

More than fifty percent of students walked or bicycled to school in 1969. Today fewer than 17% of students get to school “on their own steam”.

We're not starting from scratch

A North County and a South County Sustainable Thurston panel considered the results of the 2010 Healthy Kids, Safe Streets Action Plan - the results of a community conversation of school district, jurisdiction and citizen stakeholders. The panels agreed the goal should be:

- To build a generation of safe and healthy walkers, bicycle and bus riders with education, encouragement programs and by building safe routes for travelers
- Increase communication with and coordination between cities and school districts. In the south county communication with Washington State DOT is key due to issues of safety along state highways.
- Cooperate and collaborate on decision making about
 - infrastructure improvements around schools
 - school siting and design
 - opportunities to co-locate school and other community facilities - leveraging funds wherever possible and maximizing use of schools as community centers



DID YOU KNOW ...

Walking to school is associated with higher physical activity throughout the day and better academic performance.

Choices made today will shape our future

Decreasing the number of students that travel to school in vehicles will help decrease energy use, increase student health, and decrease costs to school districts, households and the community.

Making Connections

While most travel may continue to be by family car, supportive safe travel infrastructure that encourages walking, biking and bus riding:

- Connects community
- Improves safety awareness, health and physical fitness, saving money for households and community health and public safety providers
- Helps the environment by reducing our carbon footprint
- Improves mobility and provides transportation options
- Increases community safety with more people walking – looking out for one another
- Enhances neighborhood vitality

DID YOU KNOW ...

Washington State obesity rates have more than doubled since 1980. 11% of Thurston County 10th graders are obese and 14% are overweight.

DID YOU KNOW ...

Sedentary kids increase the likelihood of youth onset obesity, diabetes and heart disease that stresses household and community health budgets.



About This Project

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LOCAL FOOD SYSTEMS

Let's plan together to create vibrant and resilient local food systems, with broad access to a variety of food choices for all residents.

How we grow matters

Where does our food come from? The food on an average U.S. dinner plate travels 1,500 miles and the average American city has a 3-day supply of food in reserve. We all make daily decisions that affect our food choices. Do we live close to a full-service grocery store or restaurant? Can we grow some of our own produce? If we do not own a car, can we reach a farmers market? If so, can we afford the food there? Can our producers make sufficient income to stay in business? Expansion of local and regional food systems faces multiple challenges: geographical and seasonal constraints; logistical and marketing issues; policies and politics; and – perhaps most daunting – the changing of personal habits.

The destiny of nations depends on the manner in which they feed themselves.

- Jean-Anthelme
Brillat Savarin

We're not starting from scratch

Across the Thurston region, people, government, businesses and organizations are focusing on food.

- In 2011, hundreds of community members participated in “Focus on Food” events (farm tours, library speakers), culminating in the “Come to the Table” food summit – one evening and a full day of over 700 people engaged in celebration, learning and planning.
- Voices of Youth selected increasing access to healthy food as their 2012 project.
- Public and private solid waste systems provide education and tools for composting.
- The community is sprouting more: farms, food-related businesses, farmers markets and food stands, mobile food trucks, food bank outlets, and community and private gardens.
- The Thurston County Board of Commissioners added a Health chapter to their Comprehensive Plan with food as a topic; and developed an Agritourism zoning layer to promote farm and food related businesses.

Choices made today will shape our future

Today, we dine on the results of past decisions. Tomorrow, we may feast or starve on decisions made today. In addition to the strong community interest in food systems, the region faces constrained resources and growing needs –based on our current population levels. The needs of the people who live here now will change and likely grow – because of age, income status, disability, births, deaths and other life issues. The 170,000 people who join our community will also represent a mix of income, culture, age, needs, and ideas. Some will require assistance in meeting basic needs, including food. Both growing needs and a growing population require that we adopt plans and actions to take care of current and future residents.

DID YOU KNOW ...

Americans waste more than 40% of their food.

Food scraps make up nearly 20% of the waste in landfills.

Making Connections

Everybody eats. The food system fuels our bodies and our economy. In the Thurston Region, food processing annually generates \$321 million, provides 448 jobs, with a market value of crops over \$118 million per year. We also face two epidemics: hunger and chronic lifestyle conditions such as obesity and diabetes directly linked to access to and types of food.

The food system uses energy and other resources – human energy, land and water resource lands, fossil fuels, and water. It makes sense to get the most out of that energy. Using “food” as “food” for as long as safety allows benefits all our systems, including food and waste systems.

Many people cite transportation as a critical barrier to accessing a broad range of food, especially in rural communities. This may be especially critical in emergencies. We must work together to ensure that our food systems operate before, during, and after adverse conditions occur. Transportation also plays an important role on the food production, processing and distribution side. How do we minimize trips while maximizing access. The largest public transportation provider – the school bus system – plays a role in food too, as we transport children to schools with food programs and food education.



In the long view, no nation is healthier than its children, or more prosperous than its farmers.

- Harry S. Truman

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SOLID WASTE

Let's plan together to create communities that are vital and resilient - with services that support reduction, reuse, and recycling of solid waste to maintain a healthy environment and a high quality of life.

How we grow matters

In 2010 each county resident generated about: 1,270 pounds of solid waste, 556 pounds of recycling, and 2 pounds of collected household hazardous waste. A utility system is required to collect, reuse, recycle, and safely dispose of these products.

- **Solid Waste** refers to all wastes that are generated by residential, business, industrial, and institutional locations.
- **Hazardous Wastes** are those wastes that are corrosive, ignitable, toxic, reactive, or harmful to the environment.

DID YOU KNOW ...

In 2008 packaging alone accounted for about 31 percent of all municipal solid waste in the country. For Thurston County this was about 55,075 tons which were sent to the landfill.

We're not starting from scratch

Solid waste and recyclables are collected by a private contractor in Thurston County and by the City of Olympia within its boundaries. All solid waste is processed through the Waste and Recovery Center at Hawks Prairie (old landfill). From there it is loaded onto truck trailers and sent to Centralia where it is loaded onto a train for transport to the regional landfill. Recyclable materials (plastics, glass, metals and paper) are sent to a facility in Pierce County. Organic materials (food scraps, paper products and yard waste) are sent to a facility in the county near Rainier. Hazardous materials are collected at the recently rebuilt *HazoHouse* (also at Hawks Prairie), and by *WasteMobile* events throughout the county.

Choices made today will shape our future

The capacity of the current Waste and Recovery Center at Hawks Prairie could be increased by about 25 percent. However, with changing solid waste disposal trends, determining when this capacity might be needed will be tricky. A previous needs assessment projected that a new solid waste handling facility might be needed in southern Thurston County. Regardless of the exact date such facilities take decades to plan, permit, fund, and construct.

Construction and waste debris represents about 15 percent of the solid waste heading to the landfill (down from 23 percent in 2004). The county may explore ways of creating a recycling facility for construction and waste debris which is cost effective since more construction debris could be recycled.

REDUCE – REUSE – RECYCLE. Of these three, avoidance always has the least cost. Even recycling collected materials requires energy and the consumption of fossil fuels. On the bright side, from 2000 to 2010 recycling in Thurston County increased by 160 percent.

DID YOU KNOW ...

A 1993 telephone survey found 4 of 5 respondents wanting more convenient disposal of hazardous waste. A majority of *WasteMobile* participants were found to live within 10 miles of the event.

Making Connections

Residents and business within the county will continue to generate solid and hazardous waste. Reuse or recycling efforts can divert waste from the landfill, but education, recycling and hazardous waste collection program are all paid for by the rate to dispose of the waste. As our population expands, both new facilities and continued diversion programs will be needed to maintain the current disposal and recycling levels into the future.

Expanding recycling programs can benefit climate change. Every ton of municipal solid waste that is diverted from going to the landfill means about three fewer tons of CO² entering the atmosphere (EPA, 2007).

One of the county's success stories is expanding the organic recycling program to include food waste and compostable paper. This was possible due to the construction of new privately funded facility. In 2012 Silver Springs Organics should be in full production with soil amendment products for sale as well as adding jobs to the local economy.

- ❖ Are there other local opportunities to make useful products from diverted waste or recycled materials?
- ❖ Could a recycling facility for construction and waste debris create new local jobs similar to Silver Springs Organics?

Governments working together - is another way to minimize the future cost of solid waste disposal. Within the next thirty years a new solid waste handling facility may be needed for south Thurston County. If it were located in the Grand Mound/Rochester area it could be coordinated with the City of Centralia to be a regional facility. Such a facility could also provide south Thurston County with a more convenient location to collect hazardous waste.



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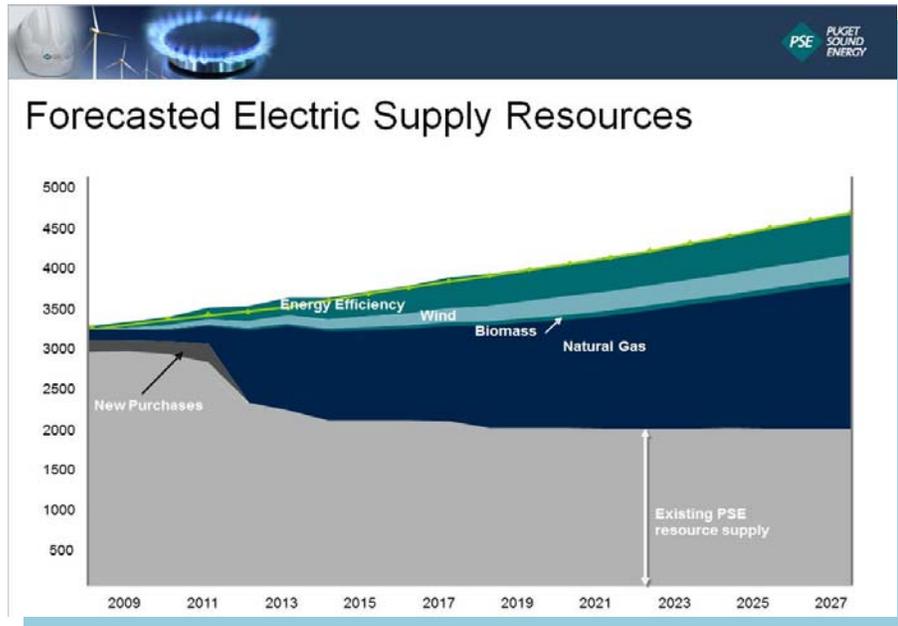
ENERGY

Let's plan together to create more energy efficient communities that are vital and resilient - with an adequate supply of energy that is used wisely and efficiently.

Note: The Energy White Paper does not include transportation energy use because it is included in the Land Use, Transportation, and Climate Change information.

Energy Matters

Every aspect of our existence is influenced by the presence or absence of reliable energy. Try to think of a business activity that wouldn't be affected by a loss of electricity or fuel. Walk down any street and imagine no electricity or natural gas. What businesses would still be open and operating without monumental changes? Personal lives are the same. Imagine our lives without lights, heat, cell phones, TV, the internet—the list goes on. So as we examine a sustainable Thurston County, it's crucial we have a thoughtful conversation about energy—what we have, what we'll need and how we'll meet that need.



Electricity

Puget Sound Energy provides electricity for Thurston County. That electricity is generated using a number of different resources. Hydroelectric power accounts for the largest share of PSE's power portfolio. Coal (in Montana) and natural gas (Washington) also provide significant shares. Wind power is an important and increasingly prominent resource for PSE. PSE operates two large wind farms in Central and Eastern Washington. Both challenges and opportunities exist.

Challenges

Supply: *Siting new natural gas power plants involves long plan and approval timelines.*

Future Costs: *If demand outstrips supply, we may see future increases.*

Flexible Generation: *Renewable sources like wind and solar vary in output daily. New gas fired plants will likely even out the supply.*

The Grid: *The entire grid needs additional investment in coming years for reliability, capacity and flexibility. What's known as the smart grid, that adapts to multiple supply and demand inputs will require even more investment.*

Opportunities

Efficiency: *Improvements in our housing, commercial and industrial building stock will immediately lessen demand and free up existing supply. Included are efficiency standards for appliances and equipment. Ground source heat pumps save energy and money.*

Distributed Generation: *Solar generation is effective even in Western Washington's gray days.*

Combined Heat and Power: *At LOTT, waste heat from the distributed generation process is used to heat buildings or in industrial processes.*

Financing: *New models like on-bill financing, PACE (Property Assessed Clean Energy) and government revolving funds can help fund efficiency improvements and distributed generation.*

Energy Storage: *New means to store energy can help even out the variable generation of renewable sources.*

Smart Grid: *The grid can become smarter by bringing online devices to measure, record and transmit data about energy generation, availability and usage. Smart meters in structures or equipment can report to the utility. Excessive losses can be identified. We can encourage PSE to make smart grid investments in concert with other upgrades.*

Natural Gas

PSE provides a reliable natural gas service to Thurston County. Unlike electricity, natural gas cannot be generated in a distributed fashion. Recently, gas prices have been reduced and supply meets demand. Natural gas is used for both retail sale to the consumer and for power generation.

Challenges

Supply and Demand: *Balancing supply and demand and resultant price effects. New natural gas deposits are in the news. We expect demand to grow as county, state and nation populations grow. It is difficult to evaluate how discoveries, regulation and demand will affect prices.*

Opportunities

Efficiency: *Since natural gas cannot be produced by individuals locally, improved efficiency appears to be the primary strategy. Savings could be as much as 28% in homes and 35% in commercial buildings.*

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