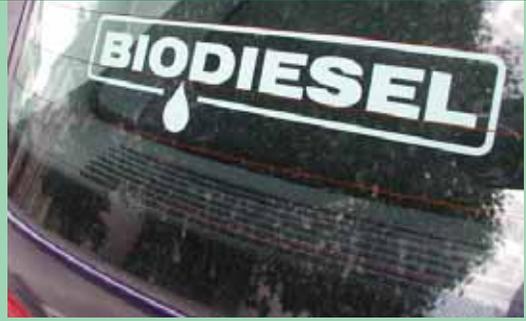




Sustainable  
Climate & Energy  
Initiative

*Green Ribbon  
Climate Task Force*  
Recommendations



January 12, 2009



December 8, 2008

County Executive Aaron Reardon  
Snohomish County  
3000 Rockefeller Avenue  
Everett, WA 98201

Dear County Executive Reardon,

As Co-Chairs of the Snohomish County Green Ribbon Climate Task Force, we thank you for the opportunity to recommend specific strategies to reduce greenhouse gas emissions in the county. This is an important goal, and initiating early action will help the county to be better prepared to address future climate change impacts, capitalize on opportunities related to alternative energy and green jobs, and demonstrate leadership.

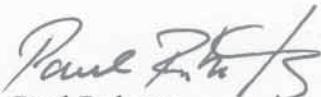
The Green Ribbon Climate Task Force convened in March of 2008. Its 20+ members represent a cross-section of interests and expertise in the county, including: state, county, city and tribal governments; local utilities; public service agencies; private business interests; and agricultural, transportation, environmental and development interests. To balance our recommendations with other county priorities, we divided into four committees: Green Economy, Healthy Lifestyles and Livable Communities, Energy Conservation and Innovation, and Natural Resources Management.

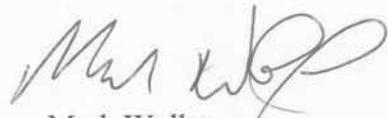
We believe the Task Force has recommended a strong set of strategies to help the county reach its climate change goals. Our recommendations draw from analysis by county staff, outside examples of successful strategies, our own collective expertise, and nine months of discussion and deliberation.

We recognize the county cannot implement these strategies alone. Whether we are talking about increasing transit use, getting yard waste out of the waste stream, or conserving energy, these recommendations require support from numerous partners and action on the part of all county residents. We must all work together to achieve these strategies.

On behalf of the Green Ribbon Climate Task Force members, we respectfully submit our final recommendations on strategies to reduce greenhouse gas emissions in the county while protecting our high quality of life.

Sincerely,

  
Paul Roberts  
Everett City Council

  
Mark Wolken  
Mark Wolken Consulting



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# Introduction

This document contains recommendations from the Snohomish County Green Ribbon Climate Task Force to Executive Aaron Reardon on ways the county can meet its greenhouse gas reduction goal. The Green Ribbon Climate Task Force is comprised of 24 representatives of local public agencies and private industries appointed by Executive Reardon, with a charge to recommend a set of feasible and actionable items the county can undertake to reduce greenhouse gas emissions countywide to 20% below 2000 levels by the year 2020. The Task Force's recommendations will shape the content of a climate action plan for Snohomish County to achieve the above-mentioned emissions reduction target.

In developing its recommendations, the Task Force drew on the expertise of its members, technical analysis from county staff, presentations from experts in the field and other examples in the region. An inventory of countywide emissions formed the backdrop of the work, illustrating the county's trend in emissions between 2000 and 2005, and showing the proportion of emissions that stem from various sectors (transportation, buildings or solid waste). Major findings of this report include:



- Emissions between 2000 and 2005 dropped significantly, primarily due to the Snohomish County Public Utility District purchasing a cleaner electricity fuel mix (although emissions declined, energy use did not);
- Population growth is expected to increase the county's overall emissions by 2020; and
- Sixty-three percent of the county's 2005 emissions are related to transportation, 36% comes from electricity use in buildings and 1% is related to solid waste.

The Task Force recommendations also build upon numerous county efforts underway that help to create a sustainable Snohomish County. These include its Green Fleets and Biodiesel Initiatives, its efforts to create a green community at Cathcart and its work toward a green procurement policy. The Task Force encourages the county to continue with all of these efforts as they complement the recommendations in this report.

The recommendations outlined in the following sections of this report represent nearly a year of work to identify solutions that reduce greenhouse gas emissions in the county while also strengthening our economy, improving the quality of our communities, moving toward energy independence and conserving our natural resources. With these goals in mind, the Task Force formed its recommendations through the following committees:

- Green Economy Committee;
- Healthy Lifestyles and Livable Communities Committee;
- Energy Conservation and Innovation Committee; and a
- Natural Resources Management Committee.

A detailed description of the committees is included on the following page.

Each of the four Task Force committees touched on numerous emissions sectors, and the recommendations in this report are itemized by sector (Buildings, Transportation, Solid Waste, Natural Resources and General Recommendations), rather than by committee. Appendix C includes the full recommendations from each committee.

While the Task Force supports the general concepts put forth in this report, the details of implementation require additional stakeholder input. An implementation program must include an economic analysis that considers the up-front implementation costs, the potential for secondary or long-term costs or gains, and one that identifies who is affected by the potential costs. This analysis will help to balance the county's goals for greenhouse gas reductions with other important economic factors.

# Green Ribbon Climate Task Force Committees

Committee	Related Topics	Emission Sources of Focus	Members
Green Economy	Green Jobs Innovation Solid Waste Research and Development	Solid Waste (innovation and green jobs area) Buildings/Energy (green jobs area and R&D)	Wolken, Mark (Mark Wolken Consulting) Triezenberg, Ed (Pacific NW Council of Carpenters) Reiner, Dale (Sno/Sky Agricultural Alliance) Mohr, John (Port of Everett) Golden, KC (Climate Solutions)
Healthy Lifestyles and Livable Communities	Families Activity Healthy Diet Personal Transportation Quality Communities (safe, w/ amenities, etc.)	Transportation (pedestrian, bicycle, community-scale transportation/transit links land use) Agriculture (healthy, local food)	Goldbaum, Dr. Gary (Snohomish Health District) McLerran, Dennis (Puget Sound Clean Air Agency) Jerabek, Jennifer (Master Builders of King and Snohomish Counties) Haakenson, Gary (Mayor of Edmonds) Cooper, Rick (Everett Clinic) Eleanor, Joyce (Community Transit)
Energy Conservation and Innovation	Alternative Energy Transportation New Economy	Buildings/Energy (electricity sources, new technology) Transportation (transit advances, green fuels) Solid Waste (methane recovery for energy)	Klein, Steve (PUD) Cooper, Mike (Snohomish County Council) Putt, Kathy (Comcast) Adelstein, Aaron (Built Green) Pursley, Larry (Washington Trucking Association) Einstein, William (Puget Sound Energy)
Natural Resources Management	Agriculture Forestry Water	N/A (Snohomish County greenhouse gas inventory does not consider these topics. Focus on carbon retention in resource lands.)	Roberts, Paul (Sound Transit/Everett/ Marysville) Chattin Bruce (Washington Aggregates & Concrete Association) Sheldon, Mel (Tulalip Tribes) Somers, Dave (Snohomish County Council) Lynn-Frank, Kari (National Association of Industrial & Office Properties)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>Buildings</b>		
1. Implement programs to reduce “on-grid” energy consumption in new building construction.	1. Implement incentive programs to significantly increase the proportion of new construction built to green building standards.	L-M (SnoCo)
	2. Promote more compact housing choices. Ensure the county has clear development codes, permit processes and incentives for cottage housing.	L (SnoCo)
	3. Support local businesses in researching, developing, installing and maintaining alternative energy technologies. Offer incentives and support local utilities in offering incentives for using such technology.	L (SnoCo)
	4. Offer incentives and support local utilities in offering incentives for energy efficiency technology. Assist utilities in seeking additional funds from federal and state governments to help utility based energy efficiency programs. Support development of recycling programs for new appliances and technologies.	L-M (SnoCo)
	5. Demonstrate leadership by committing to constructing future county buildings as “green,” energy efficient buildings.	L (SnoCo)
2. Implement programs to reduce “on-grid” energy consumption in existing buildings.	1. Support home weatherization programs offered by local utilities and continue offering low-income home weatherization programs. Work with utilities and the state on programs that provide energy efficiency retrofits of buildings.	L (SnoCo/State/ Utilities)
	2. Provide incentives for, and support state incentives for, the installation of alternative energy technologies.	L-M (SnoCo/State)
	3. Offer incentives and support local utilities in offering incentives for energy efficiency technology. Assist utilities in seeking additional funds from federal and state governments to help utility based energy efficiency programs. Support recycling programs for replaced (and new) appliances and technologies.	L-M (SnoCo/ Utilities)
	4. Demonstrate county leadership by setting and achieving a numeric goal for reduced energy use in county buildings.	L (SnoCo)
3. Support local utilities in achieving or exceeding the requirements of Initiative 937.	1. Coordinate with local utilities to streamline the siting and permitting of renewable energy infrastructure related to wind, solar, geothermal, tidal, biomass, and other energy sources.	L-M (SnoCo)
	2. Support economic development and “green jobs” creation in renewable energy development and facilities operation. Adopt economic development strategies that encourage renewable energy businesses and industries to locate in Snohomish County.	L (SnoCo)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>Transportation</b>		
1. Support increased public transportation.	1. Implement Sound Transit Phase 2 as approved by voters in 2008.	H (Transit)
	2. Complete Community Transit's "Swift" bus rapid transit (BRT) on SR 99 and expand it to additional corridors providing improved east/west and north/south transit access.	M-H (Transit)
	3. Provide new service or increase existing bus service to the fastest growing areas of the county.	M (Transit)
	4. Increase the number of park-and-ride spaces at the edges of urban areas.	M (Transit/ SnoCo)
	5. Substantially increase the number of vans available for commute trip vanpooling.	L-M (Transit)
	6. Implement passenger rail service on the Burlington Northern Santa Fe (BNSF) east rail corridor.	M-H (Transit)
	7. Provide arterial improvements that enhance the performance of transit such as high-occupancy vehicle (HOV) lanes and transit signal priority.	H (SnoCo/Cities/ State)
	8. Improve the performance of current HOV lanes.	L (State)
	9. Provide shuttle van service to provide transportation between high capacity transit stations and dispersed employers.	L (Transit/ Em- ployers)
2. Use education and incentives to encourage the use of alternative modes of transportation.	1. Expand and take advantage of the successful health and alternative transportation promotion and education efforts that are currently under way.	L (Public Agencies /SnoCo/Cities)
	2. Increase the number of employers offering incentive-based commute reduction programs to employees by recruiting new voluntary employers or expanding the program to employers with less than 100 employees.	L (Transit/ SnoCo/ Employers)
	3. Expand the county's corridor trip reduction program, now successfully being implemented on 164th SE/SW to other congested corridors.	L (SnoCo/Cities/ Transit)
	4. Look for opportunities to reduce congestion by reducing trips rather than adding roadway capacity.	L (SnoCo/Cities/ Transit/State)
	5. Establish residential and small employee trip reduction programs in each of Snohomish County's urban centers.	L (SnoCo/Cities/ Transit/State)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>Transportation</b>		
3. Support compact, transit-oriented, pedestrian-friendly, mixed-use development.	1. Make the county's urban centers demonstration program a permanent program.	L (SnoCo)
	2. Plan promising Snohomish County urban centers emphasizing transit-oriented, pedestrian friendly, mixed-use design.	M (SnoCo/Cities)
	3. Provide infrastructure and amenities up-front in urban center areas to encourage pedestrian activity and development.	M (SnoCo/Cities)
	4. Coordinate Snohomish County's urban centers concepts with Community Transit's "Transit-Emphasis Corridor" concepts.	L (SnoCo/ Transit)
	5. Emphasize transit-compatibility when designating transfer-of-development-rights receiving areas.	L (SnoCo)
	6. Encourage mixed-use development, which includes needed services and desirable destinations within walking distance of residential development.	L (SnoCo/Cities)
	7. Encourage the development of neighborhood centers.	L (SnoCo/Cities)
4. Improve the bicycle and pedestrian environment.	1. Engage local transit agencies and cities in a joint pedestrian/bicycle planning process.	L (Transit/ SnoCo/ Cities)
	2. Fill infrastructure gaps and identify funding sources to improve pedestrian and bicycle circulation systems.	M (SnoCo/Cities)
	3. Work with Snohomish County jurisdictions to adopt "complete streets" policies for roadway improvements in urban areas.	M (SnoCo/Cities)
	4. Increase transit capacity to accommodate bicycles through expanded secure storage and additional carrying capacity on buses.	L (Transit)
5. Work with federal, state, and regional agencies to develop an effective system of road pricing mechanisms for roads.	1. Coordinate with relevant agencies and stakeholders develop the roadway infrastructure and provide sufficient alternatives to driving to make roadway pricing mechanisms a more feasible option.	M (SnoCo/State)
	2. Work with transportation and transit agencies to explore the use of roadway pricing to improve HOV lane performance.	L (SnoCo/ Transit/ State)
	3. Work with the WSDOT to explore the use of roadway pricing as a way to improve freight vehicle performance.	L (SnoCo/State)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>Transportation</b>		
6. Manage parking.	1. Amend the Snohomish County development code, and encourage cities to amend their development codes to reduce parking minimum standards or to add a parking maximum restriction in targeted areas. Encourage the use of shared parking.	L (SnoCo/Cities)
	2. Work with employers to use employee incentives and education to reduce the need for employee parking.	L (SnoCo/Cities/ Employers)
7. Support cleaner cars and light-duty trucks.	1. Support the State of California's efforts to be granted a waiver from the EPA for the regulation of greenhouse gas emissions from new light-duty vehicles licensed in Washington State.	L (State)
8. Support vehicle electrification.	1. Support efforts to extend the existing state sales- and use-tax exemption for plug-in hybrid vehicles and electric vehicles beyond the current sunset date.	L-M (State)
	2. Provide incentives and opportunities to demonstrate electric vehicle applications to help catalyze vehicle purchases.	L (SnoCo/State)
9. Support cleaner fuels.	1. Support state rulemaking to require the content of gasoline sold in the State of Washington to contain 10% ethanol and the content of diesel sold in the State of Washington to contain 5% biodiesel.	L-M (State/ Citizens)
	2. Support locally grown and processed fuels.	L (SnoCo/ Citi- zens)
	3. Work with businesses and employers to promote sustainable transportation policies in the private sector.	L (SnoCo/ Busi- nesses)
<b>Solid Waste/ Resource Stewardship</b>		
1. Launch a program to remove recyclables and organic materials from the waste stream.	1. Support the state's proposed 80% recycling goal. Pursue partnerships with local businesses to expand recycling services and develop markets for collected materials and products with recycled content.	L-M (SnoCo)
	2. Consider adopting a mandatory recycling policy for recyclables to be separated from garbage prior to disposal.	M-H (SnoCo)
	3. Set and achieve a numeric goal for recycling food scraps and yard debris.	M (SnoCo)
	4. Develop programs to encourage the reuse and recycling of construction and demolition materials.	L-M (SnoCo)
	5. Encourage product stewardship programs that increase the collection and recycling of products that cannot be collected with typical recyclables.	L-M (SnoCo)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>Natural Resources</b>		
1. Protect and expand resource lands and tree cover where possible.	1. Develop incentives, strategies and policies for natural resource landowners to protect their existing lands and expand their tree cover.	L-M (SnoCo)
	2. Work with state government and industry to develop a greenhouse gas regulatory system to encourage landowners to maintain and expand forestlands.	L (SnoCo)
	3. Support implementation of the Snohomish County Agriculture Action Plan and actions by the Agriculture Advisory Board to protect and enhance existing county agriculture lands.	M-H (SnoCo)
	4. Expand urban and community forests and greenspace by creating a collaboration of organizations with a charge to develop voluntary incentives and education for creating carbon-sequestering landscapes.	L-M (SnoCo)
2. Encourage management practices that increase the carbon-carrying capacity of existing forests.	1. Develop management practices and incentives that encourage healthier forests and increased carbon sequestration.	L (SnoCo)
3. Promote practices that reduce greenhouse gas emissions from natural resource lands.	1. Encourage the use of management practices for agricultural production and forestry management that minimize production of greenhouse gases.	L (SnoCo)
	2. Support efforts to develop agricultural waste gas extraction and reuse facilities. Support industry and universities developing methods for capturing, reusing and sequestering methane from the environment.	L (SnoCo)
	3. Encourage consumers to buy locally produced products.	L (SnoCo)
5. Implement climate change adaptation strategies related to water resources.	1. Support water storage and management strategies that provide adequate water supplies year-round in the county for households, businesses and agriculture.	L (SnoCo)
	2. Support strategies that protect natural resource lands from flood waters and sea-level rise, including beneficial stream maintenance.	L-H (SnoCo)
	3. Encourage the development of water resource regulations that are complimentary to our adaptive needs in a changing climate.	L (SnoCo)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>General</b>		
1. Implement a public education and outreach strategy regarding county activities on climate change.	1. Partner with other agencies and organizations to provide outreach to residents about how to reduce their emissions and live healthier lifestyles.	L-M (SnoCo)
	2. Develop communication systems to allow the public to stay involved with the county's climate action strategy as it progresses.	L (SnoCo)
2. Form economic development strategies that capitalize on opportunities for green jobs and renewable energy industries.	1. Focus economic development strategies on attracting industry related to renewable energy research and development.	L-M (SnoCo)
	2. Continue implementing Snohomish County's Biodiesel Initiative.	L-M (SnoCo)
	3. Lobby for local technical college training programs to bring local expertise in installing, operating and maintaining new renewable energy technologies.	L (SnoCo)
	4. Support state tax incentives for renewable energy technology.	L (SnoCo)
3. Establish green procurement policies and encourage other agencies to do the same.	1. Integrate a green procurement system into standard county purchasing and bidding procedures.	L (SnoCo)
	2. Work with local businesses to educate and encourage them about green procurement opportunities and model policies.	L (SnoCo)
4. Advocate for local participation in and benefits from greenhouse gas regulatory programs.	1. Participate in regional and national greenhouse gas regulatory program discussions and encourage legislative action that recognizes local programs and practices within the county.	L (SnoCo)
	2. Conduct outreach to raise awareness among local industries and businesses about the potential benefits of participating in carbon markets. Encourage industries that can benefit from carbon markets.	L-M (SnoCo)
5. Continue to build local and regional partnerships with mutual climate change goals.	1. Coordinate with local transportation and transit agencies and support their efforts for the expansion of public transit systems.	L-M (SnoCo)
	2. Coordinate with local utility providers on energy conservation programs and support their renewable energy efforts.	L-M (SnoCo)
	3. Maintain and strengthen county partnerships that can assist with education and outreach efforts to reduce emissions.	L (SnoCo)
	4. Facilitate and assist in the formation of private industry partnerships to work toward climate change mitigation.	L (SnoCo)

# Summary of Recommendations

Recommendation	Strategy	Cost
<b>General</b>		
6. Consider and involve vulnerable populations in developing an implementation plan for Task Force climate change recommendations.	1. Support continued funding of the federal energy assistance and weatherization programs.	L (SnoCo)
	2. Engage vulnerable populations in the development of climate change mitigation and adaptation policies.	L-M (SnoCo)

# Buildings

Energy use in residential, commercial, and industrial buildings account for 36 percent of Snohomish County's greenhouse gas emissions. Significant improvements in energy efficiency, greatly expanded energy conservation practices, and a shift toward more clean and renewable energy sources are necessary to meet the county's greenhouse gas reduction target. The recommendations and actions outlined below are intended to reflect the suite of programs required to meet this target. Specifically, the county must facilitate green building, energy conservation and efficiency, a shift to building more compact homes and renewable energy investments.

## Recommendation #1

Implement programs to reduce "on-grid" energy consumption in new building construction.

### Strategies

1. Implement incentive programs to significantly increase the proportion of new construction built to green building standards, such as Built Green, LEED, Green Globes and/or Energy Star. Certified green buildings use an average of 30% less energy than conventionally built homes.
2. Promote more compact housing choices, such as attached condominiums, attached townhomes and cottage housing where appropriate. Ensure the county has clear development codes, permit processes and incentives for cottage housing.
3. Support local businesses in researching, developing, installing and maintaining alternative energy technologies that can reduce the amount of electricity building owners must purchase from utilities. Offer incentives and support local utilities in offering incentives for using such technology.
4. Offer incentives and support local utilities in offering incentives for energy efficiency technology. Assist utilities in seeking additional funds from federal and state governments to help utility based energy efficiency programs. Support development of recycling programs for new appliances and technologies.
5. Demonstrate leadership by committing to building future county buildings as "green," energy efficient buildings.



## **Recommendation #2**

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**Implement programs to reduce “on-grid” energy consumption in existing buildings.**

### **Strategies**

1. Support home weatherization programs offered by local utilities and continue offering low-income home weatherization programs. Work with utilities and the state on programs that provide energy efficiency retrofits of residential, commercial and industrial buildings.
2. Provide incentives for, and support state incentives for, the installation of alternative energy technologies that can reduce the amount of electricity building owners must purchase from utilities.
3. Offer incentives and support local utilities in offering incentives for energy efficiency technology. Assist utilities in seeking additional funds from federal and state governments to help utility based energy efficiency programs. Support recycling programs for replaced (and new) appliances and technologies.
4. Demonstrate county leadership by setting and achieving a numeric goal for reduced energy use in county buildings.

## **Recommendation #3**

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**Support local utilities in achieving or exceeding the conservation and renewable energy requirements of Initiative 937.**

### **Strategies**

1. Coordinate with local utilities to streamline the siting and permitting of renewable energy generation and distribution infrastructure related to wind, solar, geothermal, tidal, biomass, and other energy sources.
2. Support economic development and “green jobs” creation in renewable energy development and facilities operation. Adopt economic development strategies that encourage renewable energy businesses and industries to locate in Snohomish County.

# Transportation

The aim of the transportation recommendations is to achieve significant reductions in transportation-related greenhouse gas emissions, which account for 63 percent of all such emissions in Snohomish County. Total emissions from transportation is equal to the number of vehicle miles traveled (VMT) in the county multiplied by the average GHG emission per vehicle mile traveled. Thus, strategies to mitigate transportation emissions can be broken down into two categories: reducing the emissions per vehicle mile traveled (cleaner vehicles or cleaner fuels) and reducing vehicle miles traveled.

## I. Reduced Vehicle Miles Traveled

The first category of transportation emission reduction is reduced vehicle miles traveled (VMT). In 2008, the Washington State Legislature adopted goals to encourage the reduction of per capita VMT. The goals call for an 18% reduction by 2020, a 30% reduction by 2035 and a 50% reduction by 2050. The following VMT reduction recommendations seek to move Snohomish County toward a future where residents have the choice between public transportation, walking, biking or ridesharing, as well as private automobiles to meet their daily mobility needs.

### Recommendation #1

**Support increased public transportation. Significantly increasing the supply of frequent, reliable and convenient public transportation in Snohomish County has a substantial impact on reducing vehicle miles traveled.**

#### Strategies

1. Implement Sound Transit Phase 2 as approved by voters in 2008, which includes a near-term 30 percent increase in bus service on I-5 from Everett to Seattle and on I-405 from Everett to Bellevue; and, by 2023, light-rail service along the I-5 corridor connecting Lynnwood and Mountlake Terrace with Seattle, Bellevue/Overlake, and the SeaTac Airport.
2. Complete Community Transit's "Swift" bus rapid transit (BRT) on SR 99 and expand it to additional corridors providing improved east/west and north/south transit access.
3. Provide new service or increase existing bus service to the fastest growing areas of the county.
4. Increase the number of park-and-ride spaces at the edges of urban areas.
5. Substantially increase the number of vans available for commute trip vanpooling.



6. Implement passenger rail service on the Burlington Northern Santa Fe (BNSF) east rail corridor.
7. Provide arterial improvements that enhance the performance of transit such as high-occupancy vehicle (HOV) lanes and transit signal priority.
8. Improve the performance of current HOV lanes.
9. Provide shuttle van service to provide transportation between high capacity transit stations (light rail or Bus Rapid Transit) and dispersed employers.

## **Recommendation #2**

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Use education and incentives to encourage the use of alternative modes of transportation. There are many efforts currently on the ground to encourage the use of public transportation, carpooling, vanpooling, bicycling, walking, tele-working or other alternatives to single-occupancy vehicle trips.

### **Strategies**

1. Expand and take advantage of the successful health and alternative transportation promotion and education efforts that are currently under way.
2. Increase the number of employers offering incentive-based commute reduction programs to employees by recruiting new voluntary employers or by expanding the program to employers with less than 100 employees.
3. Expand the county's corridor trip reduction program, now successfully being implemented on 164th SE/SW to other congested corridors.
4. Look for opportunities to reduce congestion by reducing trips rather than adding roadway capacity.
5. Establish residential and small employee trip reduction programs in each of the county's urban centers.

### **Recommendation #3**

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Support compact, transit-oriented, pedestrian-friendly, mixed-use development. Moderate to higher density development located within an easy walk of a major transit stop -- with a mix of residential, employment and shopping opportunities -- supports transit and can greatly reduce the need for longer single-occupancy car trips.

#### **Strategies**

1. Revise the county's urban centers demonstration program, making it a permanent program.
2. Plan promising Snohomish County urban centers emphasizing transit-oriented, pedestrian friendly, mixed-use design.
3. Provide infrastructure and amenities up-front in urban center areas to encourage pedestrian activity and development.
4. Coordinate Snohomish County's urban centers concepts with Community Transit's "Transit-Emphasis Corridor" concepts.
5. Emphasize transit-compatibility when designating transfer-of-development-rights receiving areas.
6. Encourage mixed-use development, which includes needed services and desirable destinations within walking distance of residential development.
7. Encourage the development of neighborhood centers.

### **Recommendation #4**

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Improve the bicycle and pedestrian environment. Seventy-five percent of trips are not commute-related and are within 5 miles of home. Bicycle and pedestrian connections can make a significant difference in reducing vehicle miles where they connect with transit, schools and other destinations, especially in denser urban areas.

#### **Strategies**

1. Encourage local transit agencies and cities to engage in a joint pedestrian/bicycle planning process.
2. Fill infrastructure gaps in pedestrian and bicycle circulation systems. Identify funding sources to improve bicycle and pedestrian circulation.

3. Work with Snohomish County jurisdictions to adopt “complete streets” policies for roadway improvements in urban areas. “Complete streets” are designed to provide safety and convenience for all uses including walking, bicycling and transit.
4. Encourage regional and local transit agencies to expand capacity for bicycles on transit.

## **Recommendation #5**

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Work with federal, state, and regional agencies to develop an effective system of road pricing mechanisms for roads. Mechanisms include congestion pricing, variable rate tolling, and high occupancy toll lanes.

### **Strategies**

1. Coordinate with relevant agencies and stakeholders develop the roadway infrastructure and provide sufficient alternatives to driving to make roadway pricing mechanisms a more feasible option.
2. Work with the Washington Department of Transportation (WSDOT) and transit agencies to explore the use of roadway pricing as a way to improve HOV lane performance.
3. Work with the WSDOT to explore the use of roadway pricing as a way to improve freight vehicle performance as long as the vehicles meet the same clean-air standards as transit vehicles.

## **Recommendation #6**

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Manage parking. Free parking represents one of the largest hidden subsidies to automobile use. This strategy works to restrict the supply of free and/or readily available parking as a way to discourage the use of drive-alone vehicle trips and reduce vehicle miles traveled.

### **Strategies**

1. Amend the Snohomish County development code, and encourage cities to amend their development codes to reduce parking minimum standards or to add a parking maximum restriction in targeted areas. Encourage the use of shared parking.
2. Work with employers to use employee incentives and education to reduce the need for employee parking.

## **II. Cleaner Vehicles/Cleaner Fuels**

Long term, reducing greenhouse gases from the transportation sector requires increasing the fuel efficiency of vehicles or decreasing the emissions from the fuel used, or both.

### **Recommendation #7**

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Support cleaner cars and light-duty trucks. In 2006, the State of Washington adopted the California Standards for light-duty vehicle emissions for the 2009 new vehicle model year. This included a standard for the emission of greenhouse gases. Before the greenhouse gas standard can be enforced, California needs to be granted a waiver from the U.S. Environmental Protection Agency (EPA) allowing a standard for greenhouse gas emissions.

#### **Strategies**

1. Support the State of California's efforts to be granted a waiver from the EPA for the regulation of greenhouse gas emissions from new light-duty vehicles licensed in Washington State.

### **Recommendation #8**

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Support vehicle electrification. Plug-in hybrid vehicles and electric vehicles could displace petroleum with electricity, allowing for significant potential to reduce greenhouse gas emissions.

#### **Strategies**

1. Support efforts to extend the existing state sales- and use-tax exemption for plug-in hybrid vehicles and electric vehicles beyond the current sunset date of January 1, 2011.
2. Provide incentives and opportunities to demonstrate electric vehicle applications to help catalyze vehicle purchases. Both public and private demonstration projects could be helpful through a variety of vehicle classes.

## Recommendation #9

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Support cleaner fuels. In 2006, the Legislature passed the Fuel Quality Standards Act which established a minimum renewable fuel content standard. It set an initial minimum biofuels content at 2% of total annual diesel sales and 2% of total annual gasoline sales. This Act also allowed, using rulemaking, for a higher standard: 10% ethanol in gasoline and 5% biodiesel.

### Strategies

1. Support state rulemaking to require the content of gasoline sold in the State of Washington to contain 10% ethanol and the content of diesel sold in the State of Washington to contain 5% biodiesel.
2. Support locally grown and processed fuel.
3. Work with businesses and employers to promote sustainable transportation policies in the private sector, with goals to increase energy efficiency and use of alternative fuels, such as biofuels and compressed natural gas, as well as to reduce unnecessary idling.

# Solid Waste/Resource Stewardship

The county's emissions from landfilled solid waste equate to more than 60,000 metric tons of carbon dioxide equivalents per year. By keeping more material out of the landfill through recycling, we will reduce the amount of methane in the atmosphere contributing to global warming. Reduced methane from landfills is one of many ways that recycling can lower our greenhouse gas emissions. By recycling materials into new products, we avoid the significant emissions associated with harvesting, transporting and processing virgin resources. Recycling all that we can and using products with recycled content can significantly lower these emissions. Currently, curbside recycling is offered countywide, and commercial recycling collection and food and yard waste recycling are offered in much of the county. The county's current recycling rates are around 40%. Setting recycling goals and expanding recycling programs will help reduce greenhouse gas emissions and help the county meet its emissions reduction target.

## Recommendation #1

Launch an aggressive community-wide program to remove recyclables and organic materials from the waste stream.

### Strategies

1. Support the state's proposed 80% recycling goal. Pursue partnerships with local businesses to expand recycling services and develop markets for collected materials and products with recycled content.
2. Consider adopting a mandatory recycling policy for recyclables to be separated from garbage prior to disposal and for universal use by residents of combined garbage/recycling/organics collection services.
3. Set and achieve a numeric goal for recycling food scraps and yard debris. Work with local composting companies and other organizations to receive the materials, process through composting, anaerobic digestion or other means, and develop/maintain markets for the resulting energy, residuals and compost.
4. Develop programs to encourage the reuse and recycling of construction and demolition materials.
5. Encourage the development of product stewardship programs that increase the collection and recycling of products that cannot be collected with typical recyclables because they contain toxic components, are hard to handle or lack current markets. For example, compact fluorescent lights (CFLs) provide significant energy savings but contain mercury and cannot be disposed of in the garbage. Establishing a convenient product stewardship recycling program will encourage and enable residents to more confidently switch to CFLs, knowing that they have an easy and safe recycling option.



# Natural Resources – Mitigating Factors

The county's natural resources help mitigate climate change by sequestering carbon. Our natural resource lands include forests, farms, parks, urban and suburban green spaces, and our shorelines and shoreline buffers protected as critical areas. Healthy trees, plants and soils store carbon. If we make efforts to expand our natural resource lands and improve their health, the additional carbon that is sequestered will help relieve the burden of reducing all our emissions in other sectors.

Natural resource lands also store and protect water for domestic use and natural systems. Our ability to continue storing, cleaning and cooling water will play a key role in alleviating some of the climatic impacts that are projected over the next several decades.

## Recommendation #1

Protect and expand resource lands and tree cover where possible.

### Strategies

1. Develop incentives, strategies and policies for natural resource landowners to protect their existing lands and expand their tree cover.
2. Work with state government and industry in development of a greenhouse gas regulatory program to encourage landowners to maintain and expand forestlands.
3. Support implementation of the Snohomish County Agriculture Action Plan and actions by the Agriculture Advisory Board to protect and enhance existing county agriculture lands.
4. Expand urban and community forests, landscapes and green spaces by creating a collaboration between the Parks Department, Planning Development Services, WSU Extension and citizen/business groups with a charge to develop voluntary incentives and education for creating carbon-sequestering landscapes.



## Recommendation #2

Encourage management practices that increase the health and carbon-carrying capacity of existing forests.

### Strategies

1. In collaboration with the U.S. Forest Service, Washington Department of Natural Resources, Washington State University and University of Washington, develop a set

of Best Management Practices and incentives that encourage healthier forests and increased carbon sequestration.

### **Recommendation #3**

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**Promote practices that reduce greenhouse gas emissions from natural resource lands.**

#### **Strategies**

1. Encourage the use of management practices for agricultural production and forestry management that minimize the production of greenhouse gases.
2. Support efforts of the agriculture industry to develop agricultural waste methane gas extraction and reuse facilities. Support industry and universities developing methods for capturing, reusing and sequestering methane from the environment.
3. Encourage consumers to buy locally produced products as a means of reducing greenhouse gas emissions and providing incentives for local businesses.

### **Recommendation #4**

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**Consider climate change and energy goals in mineral lands and operations planning.**

#### **Strategies**

1. Consider mineral extraction and reclamation as a means of converting marginal, less-productive agricultural and forest lands into higher quality, productive lands that sequester more carbon.
2. Designate mineral lands close to markets for the aggregates to reduce transportation emissions.

### **Recommendation #5**

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**Develop and implement climate change adaptation strategies for managing water supplies, stormwater surges and sea-level rise.**

#### **Strategies**

1. Support water storage and management strategies that provide adequate water supplies year-round in the county for households, businesses and agriculture.

2. Support strategies that effectively protect natural resource lands and adjacent lands from flood waters and sea-level rise, including beneficial stream management.
3. Encourage the development of water resource regulations that are complimentary to our adaptive needs in a changing climate.

# General Recommendations

The Task Force recognizes that a strong and sustained effort, utilizing the support of numerous partners, will be required to meet Executive Reardon's climate change goals. To speak to this point, we offer the following general recommendations that are important components of any plan, and do not logically fit into the particular emissions sectors defined in the preceding sections of this document.

## Recommendation #1

The aggressive suite of programs required to effectively reduce greenhouse gas emissions will require buy-in and support from other organizations and the general public. Develop and implement a public education and outreach strategy that both informs the public about the need for the programs and enlists the public as partners in achieving greenhouse gas reduction goals.

### Strategies

1. Partner with other agencies and organizations to provide outreach to residents about how to reduce their emissions and live healthier lifestyles.
2. Develop communication systems to allow the public to stay involved with the county's climate action strategy as it develops and progress is made over time.

## Recommendation #2

National attention to climate change issues has created new opportunities for economic development focused on renewable energy and green jobs. Develop economic development strategies that capitalize on these opportunities and create a significant green job base in the county.



### Strategies

1. Focus economic development strategies on attracting industry related to renewable energy research and development.
2. Continue implementing Snohomish County's Biodiesel Initiative to catalyze local biodiesel production and processing in the county.
3. Lobby for local technical college training programs to bring local expertise in installing, operating and maintaining new renewable energy technologies.

4. Support state tax incentives for renewable energy technology, such as current incentives for solar panel installation, to help catalyze demand for renewable energy technology and industries.

### **Recommendation #3**

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Green procurement or green purchasing can help reduce greenhouse gas emissions by increasing the use of recycled products, reducing unnecessary waste and increasing the use of energy efficient products. Establish green procurement policies and encourage other agencies to engage in green procurement practices.

#### **Strategies**

1. Integrate a green procurement system into standard county purchasing and bidding procedures.
2. Work with local businesses to educate and encourage them about green procurement opportunities and model policies.

### **Recommendation #4**

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Advocate for local participation in and benefits from greenhouse gas regulatory programs in addition to other state and federal legislation to reduce greenhouse gas emissions.

#### **Strategies**

1. Participate in regional and national greenhouse gas regulatory program discussions and encourage legislative action that recognizes local programs and practices within the county.
2. Conduct outreach activities to raise awareness among local industries and businesses about the potential benefits of participating in carbon markets. Encourage the development of industries that can benefit from carbon markets as a way to further a green economy in Snohomish County.

## **Recommendation #5**

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For the county to reach its greenhouse gas reduction goal, it must show sustained commitment, support of, and partnership with other agencies in the county. The county should continue to build local and regional partnerships with mutual goals related to climate change.

### **Strategies**

1. Coordinate with local transportation and transit agencies and support their efforts for the expansion of public transit systems. Develop joint strategies to achieve mutual transportation goals.
2. Coordinate with local utility providers on energy conservation programs and support their efforts to expand renewable energy availability in Snohomish County. Develop, as necessary, joint strategies for achieving renewable energy goals.
3. Maintain and strengthen the county's many partnerships that can assist with education and outreach efforts on activities that help reduce emissions.
4. Facilitate and assist in the formation of private industry partnerships to work toward climate change mitigation.

## **Recommendation #6**

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Vulnerable populations in the county are more greatly affected by rising costs of energy, housing, and transportation, and may be less able to adapt to a changing climate. The county should consider and involve vulnerable populations as it develops an implementation plan for Task Force climate change recommendations.

### **Strategies**

1. Support continued funding of the federal energy assistance and weatherization programs.
2. Engage vulnerable populations in the development of climate change mitigation and adaptation policies.



# Appendices

1. Appendix A: Executive Order 07-48
2. Appendix B: Emissions Analysis of Recommendations
3. Appendix C: Recommendations by Committee
  - a. Green Economy
  - b. Healthy Lifestyles and Livable Communities
  - c. Energy Conservation and Innovation
  - d. Natural Resources Management



# Appendix A:

## Snohomish County Executive Order 07-48

### EXECUTIVE ORDER 07-48

#### ORDER REGARDING CLIMATE CHANGE AND SUSTAINABILITY

##### 1. PURPOSE:

To address the importance of reducing climate change effects, to redirect County resources to minimize the impact of County government on the environment, and to organize the County government to begin adaptation to the effects of global warming.

##### 2. GOAL

This Executive Order establishes an initial goal of reducing community greenhouse gas emissions by 2020 to twenty percent below year 2000 levels,

##### 3. DISCUSSION:

Protection of the natural environment is fundamental to achieving and preserving the quality of life for Snohomish County residents.<sup>1</sup>

Our climate is changing and becoming warmer. The Intergovernmental Panel on Climate Change established by World Meteorological Organization and United Nations Environment Programme found in its fourth assessment that greenhouse gas emissions have grown since preindustrial times, with an increase of 70% between 1970 and 2004. The Panel said,<sup>2</sup>

The understanding of anthropogenic warming and cooling influences on climate has improved . . . leading to very high confidence [i.e., 9 out of 10 chance] that the globally averaged net effect of human activities since 1750 has been one of warming . . . \* \* \* Warming of the climate system is unequivocal . . . .  
[Emphasis added.]

Mitigating and adapting to climate change by reducing greenhouse gas emissions, if done correctly, will: save taxpayer dollars; help build the local economy and create jobs; improve air quality, public health, and community livability; and enhance our food and energy security.<sup>3</sup>

Considerable reduction in CO2 emissions related to energy use in buildings can be achieved by changes in building occupant behavior, cultural patterns, and technology.<sup>4</sup> More energy efficient buildings will not only reduce carbon emissions considerably, but will provide

<sup>1</sup> Snohomish County Comprehensive Plan, Natural Environment, NE-1 (February 1, 2006)

<sup>2</sup> IPCC Working Group I, "Climate Change 2007: The Physical Science Basis," p. 5 (Feb. 5 2007) ([http://www.ipcc.ch/SPM2feb07\\_new.pdf](http://www.ipcc.ch/SPM2feb07_new.pdf)).

<sup>3</sup> See, e.g., Summary for Policymakers IPCC Fourth Assessment Report, Working Group III, p. 16.

<sup>4</sup> Summary for Policymakers IPCC Fourth Assessment Report, Working Group III, p. 16.

health benefits by improving indoor and outdoor air quality and improve energy security by decreasing demand for energy.<sup>5</sup>

Increased use of transport demand management, using urban planning to reduce travel demand and providing information to reduce single occupant vehicle trips will also mitigate greenhouse gas emissions.<sup>6</sup>

Taking action now to respond to global warming and climate change is consistent with Snohomish County's Comprehensive Plan. Snohomish County should adopt policies and practices that are sustainable and minimize our impact on the environment and climate. Pursuant to Comprehensive Plan General Policy Goal NE1, the County will, "Continue, existing and develop new county plans and programs to protect and enhance the natural environment through a coordinated policy framework to maintain and improve the quality of life for Snohomish County."<sup>7</sup> Snohomish County will protect the natural environment by, among other things, promotion of "energy conservation and recycling to reduce detrimental effects on the natural environmental and human health and safety."<sup>8</sup>

Protecting the environment does not mean sacrificing economic well-being. We safeguard our quality of life by encouraging economic development that provides family wage jobs consistent with environmental and economic sustainability. Our goal is to, "encourage and accommodate economic growth through plans and programs in a manner that minimizes impacts to the natural environment," as provided by Natural Environment Policy NE-1.A.5.<sup>9</sup>

As Executive and simultaneously with this Executive Order, I am forming a Green Ribbon Climate Task Force to develop an action plan for mitigation of community-wide greenhouse gas emissions and adaptation to climate change. Community members and leaders who are members of this Task Force will propose feasible actionable items for reduction by 2020 of community-wide green house gas emissions to twenty percent below year 2000 levels and adaptation to climate change by the time it concludes its work by December 31, 2008.

#### 4. ACTIONS:

4.1 Snohomish County has joined the International Coalition of Local Environmental Initiatives (ICLEI – Local Governments for Sustainability) and will be an active member and participant in the Climate Protection campaign.

4.2. Snohomish County hereby endorses the principles of the Cool Counties Climate Stabilization Declaration.

4.3 I hereby constitute and form a County Staff Climate Change Committee, whose members I will appoint.

<sup>5</sup> Summary for Policymakers IPCC Fourth Assessment Report, Working Group III, p. 19.

<sup>6</sup> Summary for Policymakers IPCC Fourth Assessment Report, Working Group III, p. 16.

<sup>7</sup> Snohomish County Comprehensive Plan, Natural Environment, Goal NE-1, page NE-2 (February 1, 2006)

<sup>8</sup> Snohomish County Comprehensive Plan, Natural Environment, Goal NE-9, page NE-16 (February 1, 2006)

<sup>9</sup> Snohomish County Comprehensive Plan, Natural Environment, Policy NE-1.A.5, page NE-2 (February 1, 2006)

4.3.1 With regard to the County's carbon footprint and emission of greenhouse gases, the Staff Committee will:

- a. Recommend to the County Executive for his approval and adoption of an inventory and baseline of greenhouse gas emissions for Snohomish County as of the year 2000;
- b. Recommend to the County Executive for his approval and adoption an action plan;
- c. Implement emission reduction measures, policies, and practices as directed by the County Executive;
- d. Monitor and verify results; and
- e. Recommend changes to the plan to the County Executive based on results.

4.3.2 The Staff Committee will serve as a focus for and distribution of ideas and allow departments to use existing skills and talent on County staff more efficiently.

4.3.3 The Staff Committee will also consider, among other things:

- a. Compliance with part 2, chapter 348, Laws of 2007, regarding public sector fuel use;
- b. Use of alternative fuels, biodiesel, hybrid vehicles, and plug in hybrid electric vehicles;
- c. Energy use by the County, including natural gas and electricity;
- d. More efficient use of the solid waste stream, including recycling;
- e. Adoption of green building design and construction standards for County facilities;
- f. County use of water resources;
- g. Increasing the use of public transportation through transportation and land use strategies;
- h. Consider the full range of policies and strategies for the County to adopt or undertake to ensure the emission reductions and economic goals are achieved;
- i. Determine specific steps the County should take to prepare for the impact of global warming, including impacts to public health, agriculture, the coast line, forestry, and infrastructure of the County;

j. Assess what further steps the County should take to prepare for the impact of global warming; and

k. Work with municipalities in the County, tribal governments and with regional governments to maximize coordination and effectiveness of climate initiatives.

4.4 In consultation with the Facilities Management Department, County departments shall consider, and implement where practicable, green building design and construction practices for County facilities pending adoption of standards.

4.5 Executive branch departments and offices whose chief officers are appointed by the County Executive are directed to provide their full assistance and support to this initiative.

CANCELLATION:

This Executive Order will remain in effect until canceled or superseded.

Dated this 20th day of July, 2007.



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Aaron G. Reardon  
County Executive

# Appendix B:

## Reaching the Emissions Target: Summary of Analysis Snohomish County Green Ribbon Climate Task Force

October 27, 2008

### Background

The Green Ribbon Climate Task Force is charged with recommending strategies to the county to reduce countywide emissions by 20% below 2000 levels by the year 2020. This goal results in a numeric target of reducing emissions by 1.93 million metric tons below a projected "business as usual" forecast for the year 2020.

At the September Green Ribbon Climate Task Force meeting, county staff presented an analysis of the emissions reductions associated with various Task Force recommendations. The emissions reductions of numerous recommendations were presented in a "per unit" analysis. For example, emissions reductions were reported for every 5% of buildings reaching a green building status, or for every 1,000 acres of expanded tree cover. Staff were asked at the September meeting to research what levels of implementation would be required to reach a total emissions reduction of 1.93 million metric tons of carbon dioxide equivalents (MMTCO<sub>2e</sub>).

### Staff Analysis

The county's initial inventory of greenhouse gas emissions was categorized into building emissions, transportation emissions and solid waste emissions. Given that a 20% reduction below 2000 levels is required overall, staff calculated separate goals for a 20% reduction in each of these three categories, based on the proportion of county emissions that fell into each category. The goals are:

- Buildings -- reduce emissions by 0.72 MMTCO<sub>2e</sub>;
- Transportation -- reduce emissions by 1.18 MMTCO<sub>2e</sub>; and
- Solid Waste -- reduce emissions by 0.03 MMTCO<sub>2e</sub>.

For each of these categories, staff calculated (1) emissions reductions expected by 2020 as a result of state initiatives, (2) emissions reductions from Green Ribbon Climate Task Force recommendations, at implementation rates high enough to meet the goals, and (3) emissions reductions from additional actions suggested by county staff.

### Results

Reaching the goals requires an aggressive suite of programs. This analysis summary is not intended to suggest a particular approach to reducing emissions, but only to illustrate what levels of input are required to achieve the numeric targets in staff analysis. The following tables outline specific detail for each segment of emissions.

**Buildings (Reduction Goal of 0.72 MMTCO<sub>2</sub>e):**

Action	Emissions Reduction (MMTCO <sub>2</sub> e)
State Initiative: I-937 conservation and renewables. (includes Task Force-recommended alternative energy actions in which the PUD would purchase renewable energy)	0.20
Reduce "grid" energy use by 30% in 30% of existing buildings. Methods include: <ul style="list-style-type: none"> <li>• Weatherization</li> <li>• Energy efficiency retrofits</li> <li>• Add renewable energy technology to buildings (photovoltaics, geothermal heat pumps, etc.)</li> </ul>	0.09
Reduce "grid" energy use by 30% in half of the new buildings built by 2020. Methods include: <ul style="list-style-type: none"> <li>• Green buildings</li> <li>• Smaller homes (cottage housing, multi-family condos, etc.)</li> </ul>	0.44
<b>TOTAL Emissions Reduction (Goal 0.72 MMTCO<sub>2</sub>e)</b>	<b>0.73</b>

**Transportation (Reduction Goal of 1.18 MMTCO<sub>2</sub>e):**

Action	Emissions Reduction (MMTCO <sub>2</sub> e)
State Initiatives: Clean car legislation and biofuels legislation.	0.75
Increased transit service hours and infrastructure.	0.06
Expanded programs to promote alternatives to driving alone.	0.03
Investments to improve street, bicycle and pedestrian connectivity.	0.02
Increased emphasis on transit-oriented development.	0.03
Full system roadway pricing.	0.34
Parking management.	0.02
<b>TOTAL Emissions Reduction (Goal 1.18 MMTCO<sub>2</sub>e)</b>	<b>1.25</b>

**Solid Waste/Resource Stewardship (Reduction Goal of 0.03 MMTCO<sub>2</sub>e):**

Action	Emissions Reduction (MMTCO <sub>2</sub> e)
Community-wide recycling goal of 60% (80% is currently under consideration by the state).	0.03
Community-wide separation and recycling (composting) food and yard waste.	0.02
<b>TOTAL Emissions Reduction (Goal 0.03 MMTCO<sub>2</sub>e)</b>	0.5

In addition to calculating emissions reductions for each of the three emissions sectors of the county's original emissions inventory, staff also calculated potential reductions in other sectors that may offset some of the requirements in the buildings, transportation or solid waste sectors. The calculation is as follows.

**Additional Calculations:**

Action	Emissions Reduction (MMTCO <sub>2</sub> e)
Expanding forest or tree cover by 1,000 acres.	0.29
<b>TOTAL Emissions Reduction</b>	0.29

Please note that the 20% emissions reduction per sector of emissions is not required to meet the overall goal of a 20% reduction of countywide emissions. It was merely a tool to set more specific targets for the purpose of analysis. The Task Force may choose to fall short of a 20% reduction in one category if it feels it can make additional reductions in another category.



# Appendix C:

## Green Ribbon Climate Task Force Recommendations by Committee

### Green Economy -- Green Jobs Committee

Chair: Mark Wolken

#### Proposed Green Ribbon Climate Task Force Mitigation Measures

##### Create Green Jobs by:

Creating a select group of projects that county government can support. Focus on being successful on a few good projects rather than being mediocre across the board by trying to do everything for everyone all at once. Make sure all environmental issues have proper program education. Establish a clearinghouse to coordinate inter relationship between activities related to green economy ideas.

##### 1. Energy Savings

Retro-fit retail, commercial and industrial buildings with incentives from local governments in the form of tax credits, property tax relief or directed grants and loans.

The County needs to use economic development funds to encourage more native plant nurseries and to expand existing County stocks for use in County properties to enhance carbon sequestration.

The County, in partnership with local governments and the Conservation District and the county Extension Service could significantly expand a backyard tree planting program with homeowner outreach, education and incentives in the form of property tax credits.

The County should encourage local live Xmas tree growers and provide a credit on property taxes based on the demonstration or validation of the carbon capture gains of every live tree that replaces a plastic, artificial one, generally made from petroleum feedstocks.

Used, recycled cut Xmas trees need to be collected in January for use as salmon habitat in local rivers.

Local, state and federal governments should be required to enhance and improve public maintenance of all right of ways with native plants.

Encourage, through the County Extension Service, the planting of more gardens (eat well, eat healthy campaign). Develop a house pea-patch package for local homes so the newest developments with residents unfamiliar with gardening can have a productive personal garden no matter how small.

Develop participatory programs in collaboration with the County Conservation District to build infrastructure support for harvesting and seeding equipment and processing capacity that may be funded with a minimal updated parcel tax.

The Community should establish programs and funding mechanisms that install and improve bicycle lanes on county roads that enhance the safety and comfort between the rider and the vehicle users of the road. This should include building better barriers along bike lanes to assure safe use and making sure bike paths are designed to solve farm machinery, rock truck inter-face safety issues. Off-road trails like Centennial Trail should be completed and expanded with local exemptions that include provisions to put retail services at each trail head where it is not in conflict with local property owners. Given the high tech expertise in the area in composites at Boeing and associated subsidiaries, there are potential partnerships to be established that will augment local bicycle businesses. Various bicycle uses, whether it is commuting to work, engaging in recreational riding or entering competitive events seem to be an alternative to carbon based systems for transportation, sport and entertainment. In many jurisdictions, support for bicycle infrastructure has resulted in a return on investment of 16 to 1, thus creating local jobs and reducing the carbon footprint simultaneously.

Our committee wants to emphasize that the return on investment in the local farm economy needs to be more in the range of \$6M to \$17M multipliers to be effective. Getting a cheaper local product (like getting a bunch of carrots grown locally) is not going to solve the larger regional and global issues: we must be positioned to work locally to enhance our strengths but we also need to continue to export our local products like milk and sweet corn. These concepts and ideas must be the standard for all programs to functionally improve the local economy and build jobs.

But this is not to say that our vital local farmer market and farmer market sites or systems should be discounted. In fact, it is essential that we support and facilitate farmer market sites through exemptions to zoning and business license rules to keep the public aware of the intrinsic value of our very important agricultural system and history in the Snohomish Valley as a commodity farming business and educate the growing urban sector about the connection between the two. We export milk, mustard, pumpkins, sweet corn, haylage and a variety of other value added commodities that may include canola in the future while we sell carrots, lettuce, kale and potatoes that are locally grown and consumed. Determine how we can get more food processing capacity in Snohomish County for regional uses.

In cooperation with local refuse haulers the County should establish a food-green waste transfer capacity for regional users. The system should use flexible fees and differential pricing to build local capacity that will reduce haul distances, travel time and fuel consumption while building on the success of private compost operations.  
Expand food waste recycling system.

Farm equipment vendors need incentives and infrastructure to locate dealerships in the county.

## **2. Energy Conservation**

Current proposals for Eastside rail or passenger rail service need to go forward. While the conservation of power is a useful tool in the battle against greenhouse gas emissions it must be delivered to the consumer public with a positive information campaign that emphasize the gains to the individual homeowner or business operator rather than the losses in convenience for individual consumers.

Recognize and build on the complex transportation benefits from e-waste recycling. For example, Snohomish County needs to use dead head capacity in the delivery of goods or commodities grown or produced locally. We can coordinate and create a network of users, producers and suppliers and construct a database of just in time capacity that will eliminate some of the no load driving.

The County and local users can support more companies like the existing regional pre-assembled house businesses to minimize travel of supply trucks into neighborhoods and new developments.

## **3. Energy Generation**

Use methane from waste water treatment plants via heat exchange methods to generate on-site utilization power needs and alternative heat sources for use in areas like radiant floor heat.

We recommend that solar power be given local support from government, the PUD and other industry users including systems that decentralize power distribution, systems that feed the grid and those that, under appropriate circumstances, do best when off the grid. These initiatives need to include power utilization incentives that have shorter ROI for all users including the residential home owner and the small business person who wants to close the loop for the on site and often unique needs of their business.

Support better research/production for storage batteries.

## **4. Energy Innovations**

Explore potential uses of compressed natural gas fuel (CNG) – in all vehicles – public, private, farm, and business using local existing infrastructure or newly built systems using biogas and bio-digesters as the point of generation. Do feasibility research to determine if more inputs can be added instead of landfill or sewer disposal as the only option.

Design/adapt and build small individual high tech windmills in partnership with companies like Boeing/Cedar Grove where individual users, including homeowners, small businesses and local governments can generate on site power sufficient for supplemental annual needs. Partner with Boeing to design/build locally for use locally in high wind areas like Smith Island for businesses and make available to appropriately sited homes in the designated areas where wind power works.

Our local County Economic Development operations should anticipate and participate in the local business evolution from old style energy users to new energy producers by utilizing or retro-fitting existing infra-structure in a public private partnership that recognizes the value of the built systems and has the imagination to apply them to new needs where the outputs are tangible commodities that have a local market.

## Green Ribbon Climate Task Force Recommendations by Committee

### Healthy Lifestyles & Livable Communities Committee

Chair: Dr. Gary Goldbaum

#### 1. Public Education Campaign

Public outreach to residents about what they can do to reduce the emissions of green house gases, how they can help to make their communities more healthy and livable, and what they can do to make themselves healthier.

##### Possible Actions

- Expand and take advantage of the successful health and alternative transportation promotion and education efforts that are currently going on.
- Create programs to assist low-income and elderly with climate change impacts.
- Offer incentives for positive climate actions
- Create a “climate action day” similar to the “bike to work” day where everyone takes specific actions to reduce their carbon footprint.
- Bring the Cool Schools program to Snohomish County schools

#### 2. Expand Transit Service in Snohomish County.

Significantly increase the supply of frequent, reliable, and convenient public transportation as a way to reduce drive-alone vehicle trips and reduce green house gas pollution from cars. The goal of this strategy is to move toward making it as easy to use transit as it is to drive.

##### Possible Actions

- Expand bus rapid transit (BRT) to additional corridors providing improved east/west and North/south transit access
- Extend light rail service into Snohomish County
- Increase the number of Park and Ride spaces at the edges of the urban areas
- Increase the number of vans available for vanpools
- Implement passenger rail on the BNSF East Rail corridor
- Expand Community Transit’s service area
- Improve HOV lane performance on I-5
- Provide roadway improvements that improve the performance of transit such as transit system priority
- Provide shuttle van service to provide transportation to dispersed employers
- Produce a transit map that shows all of the transit options in the whole region

### **3. Encourage alternatives to driving alone**

Increase efforts that encourage use of public transportation, car pooling, van pooling, bicycling, walking, and other alternatives to drive alone vehicle trips.

#### **Possible Actions**

- Increase the number of employers offering commute programs by recruiting new voluntary employers or by expanding the program to employers with less than 100 employees.
- Look for ways to expand telecommuting.
- Expand the County's ultimate capacity/transportation demand management program
- Initiate a car share program in the county like "Zipcar".

### **4. Improve the bicycle and pedestrian environment**

Seventy-five percent of trips made are not commute related and are within 5 miles of home. Bicycle and pedestrian connections can make a significant difference in reducing vehicle miles where they connect with transit, schools, and other destinations and especially in more dense urban areas.

#### **Possible Actions**

- Engage the County and cities in a joint pedestrian/bicycle planning process. Improvements should be made to fill identified infrastructure gaps in the pedestrian and bicycle circulation system.
- Identify funding sources to improve bicycle and pedestrian circulation.
- Adopt a complete streets policy for improvements in urban growth areas.
- Review the Urban Centers Demonstration Program for pedestrian-friendly elements
- Educate on how to use the bike racks on transit
- Address the lack of capacity for bicycles on transit
- Initiate a bike share program at major transit hubs
- Start "Walking School Bus" programs in the Snohomish County school districts

### **5. Parking Pricing/Reduction**

The location and availability of parking has a considerable influence on travel behavior. Free parking represents one of the largest hidden subsidies to automobile use. Converting free unrestricted spaces to time-restricted or paid parking and discouraging commuter parking in favor of short-term use can increase commute trip alternatives.

#### **Possible Actions**

- Amend County development code to reduce parking minimum standards or to add a parking maximum restriction in targeted areas. Encourage other Snohomish County jurisdictions to do the same.
- Explore ways that parking cash-outs could be used among large employers to reduce parking at employment sites.
- Implement a commercial parking tax
- Encourage the use of shared parking through the County development code

## **6. Roadway Pricing**

Roadway pricing is thought to be an effective way to encourage the use of alternative means of travel or to discourage travel all together thus reducing vehicle miles.

### **Possible Actions**

- Work with federal, state, and regional agencies to develop an effective system of road pricing mechanisms for roads.
- Work with the WSDOT and transit agencies to develop a pricing mechanism to improve HOV lane performance
- Support PSRC's efforts to develop a regional pricing approach.
- Work with the WSDOT to develop a pricing mechanism that gives freight vehicles an advantage as long as the vehicles meet the same clean air standards as transit vehicles

## **7. Encourage transit-oriented, pedestrian-friendly, mixed-use development**

Transit and pedestrian oriented development is usually defined as moderate to higher density development located within an easy walk of a major transit stop, generally with a mix of residential, employment, and shopping opportunities where a large number of necessary trips can be made by walking. This greatly reduces the need for longer single-occupancy car trips and supports transit.

### **Possible Actions**

- Revise the County's centers program ordinance making it a permanent program
- Master plan a few promising centers emphasizing transit oriented, pedestrian friendly, mixed use design
- Designate transfer of development rights receiving areas in places that are transit compatible as a way to increase densities and transit ridership
- Encourage and implement Growth and Transportation Efficiency Centers within the county
- Encourage mixed use development which includes needed services within walking distance of residential
- Encourage the development of neighborhood centers

## **8. Expand urban and community forests and green space**

This strategy would seek to establish and maintain a net increase of urban and community forests in Snohomish County offsetting greenhouse gases through sequestration. This strategy would be realized through policies that encourage the right tree in the right place.

### **Possible Actions**

- Establish urban forestry goals and strategies in local comprehensive plans
- Establish programs to help urban landowners plant and/or retain trees
- Plant more trees in urban critical areas
- Offer trees to be planted in planter strips

## **9. Encourage locally grown and organically grown foods**

This strategy reserves local options for food, fuel, and fiber production saving the costs and emissions associated with transportation of the goods.

### **Possible Actions**

- Continue transfer of development rights program
- Support or initiate community gardens
- Support or initiate farmers or public markets
- Support or initiate Community Supported Agriculture initiatives.
- Establish policies and programs to assure that farm lands are not being lost
- Provide assistance for people to grow food in their own yards
- Use edible landscaping around schools and other public buildings
- Provide space for community gardens on County-owned properties

## **10. Improve weatherization of county homes where deficient**

Improved energy efficiency of homes, especially those of the elderly and low income, saves money that can then be used on other needs that can contribute to a healthier lifestyle such as healthier, more nutritious foods. At the same time energy efficient homes reduce the emissions of greenhouse gases.

### **Possible Actions**

- Provide energy audits for the low-income and the elderly in Snohomish County
- Increase home weatherization assistance programs

## Green Ribbon Climate Task Force Recommendations by Committee

### Energy Conservation and Innovation Committee

Chair: Steve Klein

To address the impacts of global climate change as well as the long term energy supply limitations, Snohomish County seeks to provide leadership in developing and implementing cost-effective programs as well as educate, inform and lead the public on local initiatives.

1. **Snohomish County Buildings and Facilities** – Snohomish County will create an energy efficiency culture throughout county government to promote the wise use of resources and achieve cost-effective reductions in local greenhouse gas emissions. The County will set for itself aggressive energy efficiency goals (suggested overall reduction of energy use by 10% - to be determined based on benchmarking of actual energy use) and measure and track energy performance for all operations. The County will also partner with local energy providers such as Snohomish County PUD No. 1, Puget Sound Energy, and Cascade Natural Gas to budget for and take advantage of conservation programs, expertise, grants and incentives that consider solutions across all energy types to reduce overall green house gas emissions and the need for new resources.
2. **Snohomish County Employees** – Snohomish County will establish policies and mechanisms that support all County employees reduction in energy use in their daily work environments and support creative programs for county departments to reduce their travel related carbon footprint.
3. **Government Buildings New Construction** – New public buildings represent a substantial opportunity to capture cost-effective energy conservation and reductions in local greenhouse gas emissions. Therefore, the County will develop and adopt a sustainable building policy which will require a LEED rating standard or equivalent all new County government buildings.
4. **Snohomish County Leadership in Codes and Permits** – Snohomish County will adopt and lead other local jurisdictions to adopt policies that encourage the use and integration of green sustainable development practices through the establishment and enforcement of “best practices” building, land-use, codes, etc. The County will also, to the extent possible, facilitate the permitting of renewable resources (such as solar, geothermal and small wind generators) for business and residential customers seeking to reduce energy loads at their building, facility or residence. Snohomish County will encourage sustainable development in the community by creating incentives for sustainable development practices in the permitting process for both new development and redevelopment where feasible.

5. **Snohomish County Leadership in Education and Partnership** – Snohomish County will lead a collaboration of local government jurisdictions, local energy utility providers (Puget Sound Energy, Snohomish County PUD No. 1 and Cascade Natural Gas), Chambers of Commerce and other appropriate organizations to encourage businesses and residents to become more energy efficient, to reduce waste, encourage renewables, promote recycling, and lower green house gas production.
6. **Snohomish County Leadership in Acquisition** – Snohomish County will establish an energy efficiency purchasing policy for all equipment purchases such that only Energy Star rated products or high efficiency options will be purchased unless there is no such rating for that particular equipment.
7. **Snohomish County Partnership with Utilities** – The electric energy provider for the county, Snohomish County PUD No. 1, has adopted an Integrated Resource Plan (IRP) which establishes conservation as the resource of choice and will meet loads not served by conservation with a diversified portfolio of renewable resources with a focus on those resources that can be developed within the county such as tidal, geothermal, low impact hydro, biomass and solar. Based on the PUD's IRP focus on renewables in the county, Snohomish County will support the District's IRP and to the extent possible, facilitate the siting, permitting, and development of renewable resources in Snohomish County.
8. **Snohomish County Leadership in Transportation Policy** – Government transportation fleets represent a substantial opportunity to capture cost-effective energy savings and reductions in local greenhouse gas emissions, therefore the County will adopt a sustainable transportation policy which:
  - a. Mandates the purchase of energy efficient vehicles
  - b. Expands the use of alternative fuels for its fleet operations.
  - c. Establish anti-idling policies for County vehicles during normal operations.
9. **Public–Private Partnership for Sustainable Transportation Policies.** Snohomish County will work with local businesses and employers to promote sustainable transportation strategies in the private sector, with the goals of increasing energy efficiency and alternative fuels use in private fleets, and reducing unnecessary idling.
10. **Snohomish County Leadership in Recycling** – Snohomish County will provide facilities and encourage businesses and citizens to properly dispose of hazardous waste materials, including materials incorporated in compact fluorescent lights, appliances and other electronic equipment.
11. **Comprehensive County Energy Policy.** Snohomish County will develop a long-range energy goal, either through adoption of an energy policy or an energy plan, that considers long-term energy demand and generation comprehensively and is consistent with the rate of growth that is expected to occur countywide.

# Green Ribbon Climate Task Force Recommendations by Committee

Natural Resources Management Committee  
 Chair: Paul Roberts

#	Topic	Strategy	Notes/Related Actions
1	Carbon Sequestration	1.1 Preserve existing forestlands.	New tools may be needed in addition to the Comprehensive Plan and State Property Tax Reduction Incentive Program to preserve and enhance forest lands into the next century: Production Zone programs, Transfer of Development Rights, Purchase of Development Rights and urban landscaping regulations. Determine trend of conversion, develop private market incentives, improve environmental mitigation, encourage conservation easements, tax incentives for carbon sequestration.
		1.2 Promote managed forests.	Managed forests store more carbon for a longer period of time than unmanaged forests, according to the University of Washington. Healthy forests have greater capacity. County programs and building codes could encourage substitution of wood for more energy intensive materials, increase salvage lumber usage, and consumer education and outreach.
		1.3 Promote agriculture carbon management.	Encourage no-till, direct seed, and leaving crop residue. Promotes organic and sustainable farming. Washington State University encourages minimum tillage and organic farming methods for increasing in-soil storage of carbon.
		1.4 Encourage urban forests and landscapes.	Multi-layer urban landscapes store more carbon mono culture landscapes.
		1.5 Provide financial incentives for sequestering carbon through a "cap and trade" system.	State and/or federal legislation will be needed to create a "cap and trade" or carbon offset program. Establish baseline data, adopt legislation, programs, and incentives, encourage tree planting on historically forested land and in urban landscapes. Provide education on carbon sequestration.

#	Topic	Strategy	Notes/Related Actions
2	Invasive Species	2.1 Monitor shifts of plant, disease and insect populations that affect forests, farms and humans.	Forest Service, Washington Department of Agriculture (WSDA) and Washington State University are capable of monitoring invasive species movement.
		2.2 Develop control methods for species of concern.	The Snohomish County Weed Board currently controls evasive weeds and WSDA controls certain insects and disease.
3	Reduced Summer Water Supplies	3.1 Develop and promote conservation strategies for homes, businesses, agriculture and the community.	Planning and Development Services encourages Low Impact Development. WSU Snohomish County Master Gardeners and Surface Water Management promote use of rain water to irrigate landscapes. WSU Extension teaches classes in use of drip irrigation.
		3.2 Develop and promote habitat restoration practices that mitigate stream water temperatures and low flows during summer.	Use of native and drought tolerant plants promoted by WSU and SWM. Surface Water Management has existing Watershed Stewards Program. WSU Extension Snohomish County has existing natural resource education programs.
4	Intensified Stormwater Runoff and Flooding	4.1 Develop additional mitigation and protection strategies.	Surface Water Management provides the lead for County efforts. Diking Districts protect many rural communities. Snohomish County coordinates emergency management services for natural disasters.
5	Rising Sea Level	5.1 Develop adaptation strategies that protect shorelines, homes, businesses and communities from erosion, salt water infiltration and flooding, including beneficial stream maintenance.	Surface Water Management and WSU Beach Watchers provide the Shore Stewards, Beach Watcher and Marine Resource Committee programs focused on the coast line.
6	Loss of Salmon	6.1 Develop additional habitat restoration, economic impact and cultural protection strategies.	County and regionwide plans exist.

#	Topic	Strategy	Notes/Related Actions
7	Forest Protection and Enhancement	7.1 Protect and enhance forestlands through fire protection, land use regulation and healthy forest management practices.	Educate and train forestland owners and managers on healthy forest management. Provide technical assistance. (WSU Extension has existing program.) Promote fire prevention education. Develop tools such forest protection zones, TDR and PDR programs, etc. Lead on policy and regulations development and influencing state and federal policy.
8	Agricultural Land Protection and Enhancement	7.2 Encourage forest landowners to participate in carbon markets.	Educate forest landowners on the use of carbon markets.
		8.1 Protect and enhance agriculture lands.	Purchase of Development Rights programs, Transfer of Development Rights programs.
		8.2 Strengthen the local agricultural economy to help maintain productive lands.	Local food processing and processing infrastructure, R&D for new crops, state and local farm product purchasing requirements increase farmer-direct purchasing.
		8.3 Retain on-farm infrastructure.	Barn preservation program to encourage the continued use of existing buildings.
		8.4 Reduce the urban/farm land use interaction.	Increased pressure on farmland decreases the ability to farm. Options could include limiting UGA expansions and developing a farmland mitigation policy.
		8.5 Encourage agricultural landowners to participate in carbon markets.	Must educate landowners on the use of carbon markets.
9	Encourage Activities to Reduce Farming Emissions	9.1 Agriculture nutrient management.	Education and implementation of better farming practices to increase organic matter and reduce amounts of petroleum-based fertilizers applied.
		9.2 Reduce on-farm energy use and improve energy efficiency.	Applications of solar, wind, biomass digester and other energy sources. Energy use education.

#	Topic	Strategy	Notes/Related Actions
10	Urban Landscape Enhancement	10.1 Encourage urban landscapes that reduce building energy use and sequester carbon.	Establish baseline data, set goals, provide incentives, and conduct education and outreach. Building codes could encourage more plant-intensive urban landscapes. The WSU Master Gardener Program can provide information to consumers through its volunteer-based outreach program.
11	Methane Gas Emissions	11.1 Encourage use of methane gas digesters for processing animal waste.	Two digesters are in the planning stages.
		11.2 Encourage recycling of waste gases into energy production.	
12	Increase the availability of local food, fuel and fiber products	12.1 Encourage the consumption of locally-produced goods that have a lower carbon footprint.	
		12.2 Encourage production biofuels including the use of biomass from forest and farms.	Potential for Increase of Off-Grid Energy Production. Tax incentives, policies.
13	Consider climate and energy goals in mineral lands and operations planning.	13.1 Designate mineral lands close to aggregate markets to reduce transportation emissions.	Engage the mining industry in policy and regulation development. Siting mineral operations closer to urban areas reduces the transportation emissions associated with hauling the resources to their intended markets.
		13.2 Consider the final end-use of mineral operations – including opportunities for creating forests and farm land from reclaimed mining sites – when planning for and regulating mineral lands and activities.	Some parcels that currently do little to sequester carbon could be converted to productive farmland or forests that sequester greater amounts of carbon after excavated and reclaimed. With aggressive operations plans, many sites could be reclaimed for farms or forests in five to ten years
14	Increase the inventory of natural resource lands	14.1 Transfer of Development Rights (TDR) and Purchase of Development Rights (PDR) programs.	
		14.2 Increase parks and open space lands in natural habitat.	

