

Citizen Committee

# Orientation Packet



**ENVISION**  
*Shawit*  
2060



**Envision Skagit 2060 Citizen Committee Orientation Packet**

September 22, 2010

**Board of Skagit County Commissioners**

Sharon Dillon, Chair

Ron Wesen

Ken Dahlstedt

Skagit County Administrative Building

1800 Continental Place

Mount Vernon, WA 98273

Written and edited by John Lombard and Kirk Johnson

Prepared by Emma Whitfield

This project has been funded wholly or in part by the United States Environmental Protection Agency under assistance agreement PO-OOJ08201-0 to Skagit County. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.

## Table of Contents

• A message from your Skagit County Commissioners.....	ii
• Introduction .....	iii
• The Issues.....	4
• Scenarios .....	4
• Population Growth.....	5
• Climate Change .....	6
• A Landscape Perspective.....	7
• Implementation & Public Involvement .....	7
• The Built Environment .....	8
• The Natural Environment.....	9
• Natural Resource Industries.....	10
• The Charge to the Citizen Committee.....	12
• Partnerships .....	13
• Appendix A.....	14
Scenario Descriptions .....	14
Preliminary Indicators.....	15
Steering Committee Members .....	17
Steering Committee Vision Statement .....	17
Technical Committee Members.....	18
Glossary.....	19

## A message from your Skagit County Commissioners

Thank you for agreeing to serve on the Envision Skagit 2060 Citizen Committee. Skagit County is a truly special place, and working together to shape its future is a vitally important task. We look forward to your work over the next 10 months as you help the County and the broader community to develop a forward-looking vision for the next 50 years.

This orientation packet is designed to provide the Citizen Committee (and other interested community members) a more detailed overview of the Envision Skagit project. It includes background information on some of the key conservation and development issues that will be central to your discussions, and describes how the Citizen Committee will be using the *Envision* land use model under development with the help of the project's Steering and Technical Committees.

As you engage in your work, we make a special request that you consider the diverse viewpoints and perspectives that make up this great community. Project staff will coordinate several public workshops during the course of your work to ensure that the committee and the project benefit from broad community input. You will also have opportunities to meet with the County Commissioners, Mayors and Councils of several cities and towns to hear their perspectives. We want the recommendations from this process to be shaped by all of our partners in the county so that they are broadly supported. Those recommendations will be considered for possible implementation in subsequent, formal planning processes by Skagit County and other jurisdictions.

In conclusion, we ask that you work with us, our project staff, and the community at large to help shape a future for the Skagit Valley that we can proudly pass on to our children, their children and grandchildren.

Sincerely,

Skagit County Board of Commissioners



Ron Wesen  
District 1



Ken Dahlstedt  
District 2



Sharon Dillon, Chair  
District 3



## Introduction

Skagit County is an extraordinary place. It is home to:

- Puget Sound’s best remaining salmon runs, which spawn and rear in the region’s largest and ecologically most important river system
- A large and extremely diverse agricultural community, farming some of the world’s best agricultural soils
- Forests that cover 76% of the county, ranging from national park and wilderness areas to industrial forests and small rural forestlands
- Marine shoreline that extends 275 miles, including, in Padilla Bay, the largest contiguous bed of eelgrass between southern California and Alaska.
- A growing and diverse human population, living in four cities, four towns, rural areas, and four Indian reservations.



*Photo by Lauren Tracy*

Many different qualities draw people to what the Skagit Land Trust and others call the “Magic Skagit.” More than any other place in the Puget Sound region, Skagit County continues to have a sizable population that makes its living directly from the land or the water. But those who don’t work the fields, harvest the fish, or fell the timber still are often here because of the land and seascape, and their beauty, as well as the connections to nature they offer.

There is, however, an irony in this—an irony that can be especially painful to those who have seen it play out over many decades. This beauty, bounty, and connection to nature is at risk, in large part because it makes Skagit County such an attractive place to live. The county’s population has more than doubled since 1960, from 51,000 to 120,000. Current projections are for an increase of 100,000 by 2060. Just where will all those people go? And with what consequences for the things that Skagit residents love? *Envision Skagit 2060* covers many topics, but those two questions are at its heart.

Within the *Envision Skagit* project, the Citizen Committee is responsible for recommending both a 50-year vision for Skagit County and an implementation strategy to make it happen. For two years, the project has worked with technical experts and leaders of key organizations and interest groups to set the stage for the Citizen Committee’s work. *Envision Skagit* has been funded by two grants from the U.S. Environmental Protection Agency together with substantial in-kind support from Skagit County and its partners. The EPA grants have explicitly recognized the necessity of local solutions to complex environmental and natural resource challenges that are adapted to local circumstances.

## The Issues

All along, Envision Skagit has had a broad and diverse set of goals, including protecting environmental values, maintaining natural resource industries, and supporting livable, walkable, and economically vibrant communities. Envision Skagit recognizes that there are both conflicts and opportunities for mutual benefits within its multiple goals. Over 50 years, some conflicts could be exacerbated by significant population growth and the projected effects from climate change. But a 50-year time horizon also highlights shared interests and provides room for creative solutions.

The Citizen Committee will consider a wide range of issues, including:

- How much growth should be directed to urban areas vs. rural or resource lands?
- How dense should urban areas be before they expand?
- When necessary, where should urban areas expand?
- Should Skagit County plan for new villages or communities of denser development in rural areas? If so, where?
- Where should environmental restoration be focused, given competing uses for the land?
- What policies are most important to protect the long-term commercial viability of farm and forest lands?
- What land use choices are most important to protect the natural environment as well as additional natural resource industries, including fishing and shellfish?
- How do all these choices relate to goals for a healthy economy that supports local businesses, families, and communities?
- In considering recommendations, how should the rights and interests of landowners be protected? What special issues are raised by the sovereign authorities and treaty rights of Indian tribes? How will recommendations best be implemented?

## Scenarios

To prepare for Citizen Committee discussion of these issues, project staff have worked with a Steering Committee, four technical committees (for ecosystem, agriculture, forestry, and economic and growth management issues), and modelers from Oregon State University to develop four scenarios of conditions in Skagit County in 2060 (for a more in-depth description of the scenarios, see page 14). These scenarios are:

- The “Plan Trend,” which projects how Skagit County would likely evolve over the next 50 years if land use plans and policies remain unchanged;
- The “Agriculture-Forestry Scenario,” which prioritizes maintaining the county’s natural resource lands and industries;
- The “Ecosystem Scenario,” which prioritizes protecting environmental values; and
- The “Economic Development Scenario,” which prioritizes meeting the economic needs of the county and its businesses, industries, communities and citizens.

It is important to understand that none of the scenarios is a forecast of *actual* conditions. They are intended as relative extremes to illustrate the consequences of different policy choices. The Citizen Committee may choose to combine parts of different scenarios, to moderate choices illustrated by one or more scenarios, or to develop new recommendations not included in any of the scenarios. The model developed by Oregon State University based on input from the steering and technical committees, allows the Citizen Committee to change assumptions in order to evaluate their consequences, using “indicators.” There are indicators for the human world or “built environment” (e.g., urban residential densities, value of development subject to flood risk), indicators for the natural environment (e.g., salmon populations, wildlife habitat), and indicators for farming and forestry (e.g., acres of designated farmland, average total timber

harvest). See page 15 for a comprehensive list of indicators.

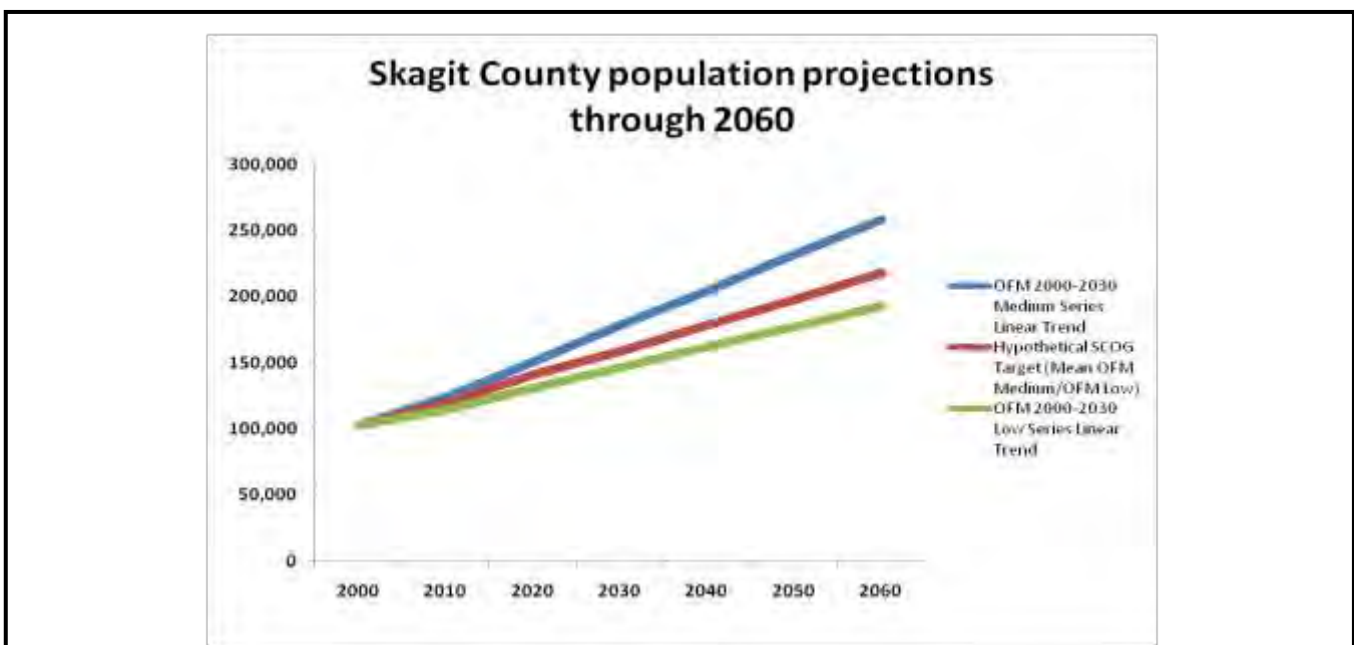
All scenarios are evaluated against all indicators. The Ecosystem Scenario, for example, has been evaluated against not just environmental indicators but also agricultural, forestry and other non-ecological indicators. Similarly, the Agriculture-Forestry Scenario has been evaluated against ecological and other non-resource-industry indicators.

Ultimately, the Citizen Committee will recommend a “Preferred Future,” which will be modeled as its own scenario, to be evaluated against all indicators as well. In 2001-03, a similar process was used for an EPA-funded study of the Chico Creek basin on the Kitsap Peninsula. In the Chico study (which had a more strictly ecological focus), a citizen-developed “moderate scenario” performed nearly as well on ecological indicators as a more extreme “conservation scenario,” while addressing many non-ecological concerns much better. There may be opportunities to optimize multiple indicators in the Skagit, too.

## Population Growth

The total population of the 12 counties around Puget Sound was just under 4 million in 2000. The State Office of Financial Management, which is responsible for projecting population under the Growth Management Act, currently predicts those same 12 counties will grow by 1.5 million by 2025. This is slightly less than the 1.6 million that the region grew by from 1975 to 2000—the first absolute reduction in population *growth* over a quarter century since Euro-American settlement. Still, this growth is rapid enough to mean that the region’s overall population will likely double at some point in the next 50 to 100 years. Skagit County, after being one of the slower growing parts of the region through most of the 20<sup>th</sup> century, is now one of the faster growing parts.

All of the scenarios modeled for this project accommodate the same range of population: a “most likely” projection of 217,578 for 2060, together with a low of 192,412 and a high of 258,212. The Steering Committee agreed that it was most equitable for modeling purposes to require that every scenario accommodate the same numbers. The Committee had a spirited discussion as to whether or not the project should accept



the general trend in population growth that the Skagit Council of Governments has decided to plan for under the Growth Management Act (which is the basis for the “most likely” projection). Some argued that Skagit County should accept fewer people, given its unique resources of regional, national, and international significance. Others argued that, because the projections are only for modeling purposes, the most important criterion is that they be credible—not artificially high or low.

By modeling a range, the project is capable of showing the benefits of a lower population for multiple goals. (The high end of the range is, in fact, the state’s “medium” projection for Skagit County. Local planners believe that is a more realistic high end than the state’s “high” projection.) The Steering Committee ultimately approved the numbers above, with the understanding that the Citizen Committee could choose to explore strategies that might reduce the county’s actual future population growth.

The project also has developed projections through 2060 of employment in Skagit County, which is another important component in determining future land needs. These will be shared with the Citizen Committee during the course of the project.

## Climate Change

Beside population growth, climate change is the other most significant predictable driver of change to the Skagit landscape over the next 50 years.

A wide range of parties are researching the actual and projected effects of climate change on Skagit County and the Skagit River watershed. To share and critique results, they have formed the Skagit Climate Science Consortium, whose participants include the University of Washington, Western Washington University, the National Park Service, the U.S. Geological Survey, the Environmental Protection Agency, the National Marine Fisheries Service, the Pacific Northwest National

Laboratory, Seattle City Light, the Skagit River System Cooperative, and the Swinomish Indian Tribal Community.

The best local evidence that climate change has already been occurring is the recession of glaciers in the upper Skagit River watershed over the past 100 years, particularly in recent decades. The National Park Service estimates that the area covered by glaciers in North Cascades National Park is about half today what it was a century ago. This is comparable to other mountainous areas in the world, which have experienced glacial losses ranging from 30-80%. Just since 1993, when the Park Service began monitoring the park’s glaciers closely, the net loss of volume from the Skagit watershed’s 390+ glaciers has equaled about 400 billion gallons, or about one month’s average flow of the Skagit River measured at Mount Vernon.



*Silver Glacier, North Cascades National Park in 1958 (at left by Post) and 2006 (at right by Scurlock). A map made in 1905 by Daly shows the glacier covering all of Silver Lake.*

Envision Skagit originally anticipated including explicit projections for sea level rise as well as greater and more frequent flooding in scenarios for the future. These projections are some of those that climate scientists feel most confident about; however, to be included in the scenarios, the projections had to have the spatial precision needed for the project’s models of the future. Unfortunately, scientists cannot yet provide that precision. (Models of sea level rise are a po-



tential exception, but modeling the potential effects on flooding behind the dikes requires considering the interaction of sea level rise with river flooding and storm surges, a degree of sophistication that researchers have not yet attained.)

In the absence of these precise data, the project has commissioned a report from the University of Washington, to be reviewed with other members of the Skagit Climate Science Consortium, which will summarize the latest Skagit-specific research on climate change and variability. This report, due at the end of 2010, will be written for the Citizen Committee and the general public and will highlight considerations that may be relevant to a 50-year plan.

Climate change is far from the only important consideration for the future that our models are incapable of addressing, as discussed further below. Final recommendations for a “Preferred Future” will need to take into account a variety of intangible or qualitative factors as well as factors that theoretically could be modeled but that require a level of detail or knowledge impossible for the project to include.

## A Landscape Perspective

The most fundamental issue that the Citizen Committee must grapple with—and that our models *can* address—is how new population in Skagit County is distributed across the landscape. This is the key distinction between the initial scenarios that the project has developed. The Plan Trend, for instance, assumes that about 80% of future population growth will go to urban areas and the remainder to rural or resource lands. That percentage is supported by current policy. In contrast, the Ecosystem Scenario assumes that about 95% of future population growth will go to urban areas. The Ecosystem Technical Committee anticipates the model will show that this high urban population allocation leads to better results for certain ecological indicators, but it may require urban densities

that the Citizen Committee and others believe are infeasible or undesirable.

In addition to whether new growth should go to urban, rural, farm or forest lands, the Citizen Committee will need to recommend where those lands are designated. Over 50 years, urban growth areas almost certainly must expand (they do even in the Ecosystem Scenario). But how much? Where? Some designated farm and forest land will most likely be lost due to population growth, infrastructure requirements, and ecological restoration or conservation. Again, how much? Should new farm and forest land be designated to make up those losses? If so, where?

## Implementation & Public Involvement

It’s important to note that the Citizen Committee will not make final decisions on these or any other issues. The committee does not have that legal authority. Elected officials from the County, Tribal governments, Cities, and Towns have the legal responsibility and authority to make final land use decisions for their respective jurisdictions. In all of these jurisdictions, established processes provide opportunities for comment from affected parties before final decisions are made. The Citizen Committee’s recommendations will require action through these processes.

Nevertheless, local governments are committed to giving great weight to the Citizen Committee’s recommendations. The state Growth Management Act (GMA) generally shares the goals of Envision Skagit and requires that local policies and regulations address its goals. The GMA provides a valuable framework for long-term planning but its time horizon is 20 years—considerably shorter than Envision Skagit’s 50 years.

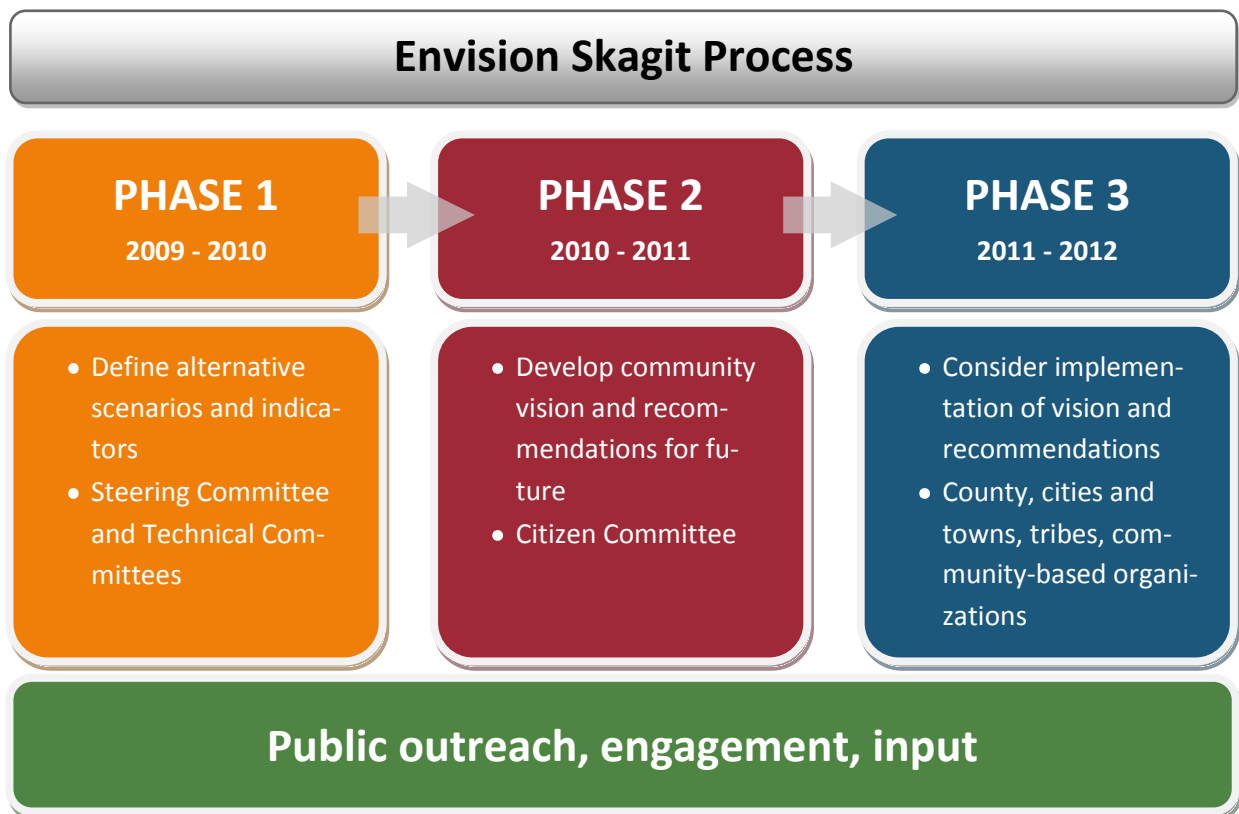
The Citizen Committee needs to be aware of the legal framework and requirements of the GMA, under which the County and local Cities and Towns are required to plan; however, in looking out 50 years, the Citizen Committee may decide at times to recommend that changes be made to state and local laws to help meet its long-term vision.

Skagit County intends to use the Committee’s recommendations to shape zoning designations as well as comprehensive plan policies that address land use planning, community and economic development, environmental protection, and natural resource conservation. The County Commissioners will discuss implementation of the Committee’s recommendations with other bodies, including the Growth Management Act Steering Committee, the Skagit Council of Governments, individual Cities, Towns, and Tribes, and, where appropriate, the State and Federal governments and others.

Skagit County, as the project sponsor, is also committed to working with the Citizen Committee to involve the public in developing recommendations. The degree to which the public has been engaged with the work of the Citizen Committee—and the degree to which the public understands and supports the Committee’s recommendations—will also greatly influence the likelihood of their implementation.

## The Built Environment

The cities and towns of Anacortes, Burlington, Concrete, Hamilton, La Conner, Lyman, Mount Vernon, and Sedro Woolley each have their own distinct character, as do the urban areas of Bay View Ridge and the Swinomish Reservation. Rural communities also have their own distinct characters, from denser villages with long histories like Bow and Conway to parts of the county where homes are scarce or few enough to be a long walk or a drive away from each other.



Many important aspects of these communities cannot be modeled—from the actual personalities and relationships of those who live there to the fates of familiar businesses and community landmarks. Changing community demographics are also an important part of local character, but they are only tangentially related to the land use issues that are the focus of this project. Housing affordability has a much stronger relationship to land use issues, yet it is so heavily affected by other factors that the project has not attempted to model it.



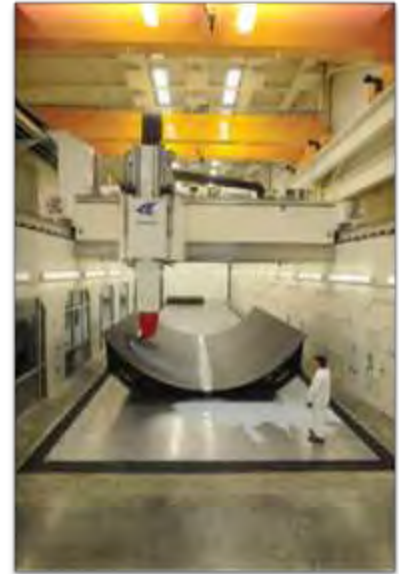
*Photo courtesy of Hartford Photography*

Two important economic indicators that the model *can* consider are the ratio of jobs to housing and the acreage, per capita, of commercial and industrial zoning. These indicators relate not only to local employment opportunities but also to the commercial tax base—and therefore the fiscal viability—of local jurisdictions, including the County, Cities, and Towns. The ability of Cities and Towns to accept and pay for urban population growth and related services is a crucial practical concern for many of the project’s goals for the ecosystem and the farm and forestry industries.

Urban residential densities, mentioned earlier as an indicator, are an important issue for quality of life. Even the Plan Trend assumes that urban residential densities will increase over time. How much of an increase is possible without losing valuable qualities of existing urban neighborhoods? On the other hand, are

there places where significant increases in density could actually improve the character of urban neighborhoods?

Building on recommendations that may come out of the Citizen Committee, the project is budgeted to support workshops in the fall of 2011 that could explore positive opportunities for more compact, walkable, mixed-use development in selected urban areas within Skagit



*Photo courtesy of Janicki Industries*

County. These workshops will explore in more detail what such areas might look like here, rather than copying developments more suited to a big city.

Densities in rural areas are also important to quality of life, not only for rural residents but also for the county as a whole. For many people, the rural landscape virtually defines Skagit County. How many new people can enter the rural landscape before that special character is gone? Is it better to concentrate additional rural population in existing communities, new rural villages, or clustered developments? In contrast, would concentrating or clustering new rural development be itself inconsistent with rural character? These are some of the questions for the Citizen Committee to consider.

## **The Natural Environment**

Skagit County is home to the greatest variety of raptors, the largest concentration of bald eagles, and the most species of wild salmon in the lower forty-eight

states. The largest runs of both pink and chum salmon outside of Alaska come up the Skagit River. The Skagit Delta is a key stop on the Pacific Flyway for hundreds of thousands of migratory waterbirds. The bays and marine shorelines of Skagit County support an astoundingly diverse food web, including the largest heron rookery in western North America near Padilla Bay.



As with the human environment, many important aspects of this complex natural environment cannot be adequately modeled in this project. Even the ecological indicators that are part of the project's model should not be considered very precise, given the limitations of both scientific understanding and the details that can reasonably be projected 50 years out; however, the ecological indicators should be good enough to say whether one overall scenario would likely be better than another for a given aspect of the natural world. For aspects that the project has not modeled, scientists can provide qualitative judgments to the Citizen Committee regarding the effects of different scenarios.

In developing an Ecosystem Scenario, the Ecosystem Technical Committee's charge was to agree on what would be best for the ecosystem, regardless of political feasibility, while still accommodating the range of population increase required for all scenarios. Many elements of the Ecosystem Scenario are consistent with guidance documents from State and federal

agencies focusing on fish and wildlife conservation and restoration.

Two important ecological indicators that the project will model are Chinook and coho salmon populations. These two species rely on different parts of the watershed at different stages of their lives. Result of how they would fare under different scenarios can also be extrapolated to help predict how other salmon species and the overall aquatic ecosystem would fare.

The Washington Department of Fish and Wildlife has developed and tested a method for assessing the overall habitat value of different parts of the regional landscape for terrestrial wildlife. Working with the Department, Envision Skagit has adapted this "local habitat assessment" for use as a generalized wildlife indicator. The project is also modeling specific indicators for waterbirds, songbirds, amphibians, and wild bee species (which are important for pollinating many Skagit crops).

In addition to fish and wildlife, the project is modeling how different scenarios would affect a variety of other benefits that humans receive from nature. These include the moderation of both high and low flows to tributaries of the Skagit River<sup>1</sup> and carbon sequestration, which mitigates greenhouse gases in the atmosphere.

Land cover is a dominant influence on all of these ecological indicators. In turn, land cover will be enormously affected by the issues being considered by the Citizen Committee.

## Natural Resource Industries

Agriculture remains one of the leading industries in Skagit County. Local farmers annually produce about \$300 million worth of crops, livestock, and dairy prod-

---

<sup>1</sup>Flows in the river itself depend so heavily on snowpack and dam operations they have not been considered.



ucts on approximately 100,000 acres of land. In contrast to the monocultures often found elsewhere, Skagit farmers grow 90 different crops, from berries, peas and potatoes to tulips, nursery stock, and vegetable seeds. One reason for this variety is the extraordinary quality of soils deposited over centuries by the Skagit River. Delta soils are considered to be in the top 1% across the world. They are made farmable by an extensive set of dikes, levees, and drainage systems that date back more than a century.



*Photo by Martin Burwash*

Even with extraordinary soils, there is a great deal of economic pressure to convert farmland to development. Farmland near the river or major tributaries also includes some of the most valuable opportunities for restoring parts of the Skagit ecosystem. Many people believe, however, that any further loss of farmland threatens the long-term viability of Skagit agriculture and its support industries. Envision Skagit has contracted with a natural resource economics firm to produce a report that considers this and other key issues for the future of Skagit County agriculture, which will be available to the public and the Citizen Committee.

Forestry sometimes get less attention than agriculture in Skagit County, but it actually makes up a far larger percentage of the County's land area, located almost entirely in the foothills and mountains. Forestry is also a sizable industry. While "stumpage value" of timber

cut in the county averaged about \$35 million a year over most of the past decade, the economic value of the industry as a whole was much greater, including value added from the Sierra Pacific and Washington Alder mills, the "multiplier" effect of payments to labor and support businesses as they pass through the local economy, and recreational use of forest lands.

Despite farm and forest land being located on distinctly different parts of the landscape, the two industries face many similar issues, such as conversion pressures from development, costly environmental regulations, and land potentially lost to production from ecological restoration or conservation. That is why the project developed an "Agriculture-Forestry" scenario that combines both sets of issues. The guiding principles of the scenario are to protect the existing base of agricultural and forest lands and the ability of farmers and foresters to profitably use them, while meeting current regulatory requirements.



As with the human and natural environments, many important aspects of the farm and forestry industries cannot be adequately modeled in our project. In particular, market prices depend on many factors completely out of local control. Prices have a huge influence on management choices in both industries, including which farm crops are grown and how frequently timber is cut. Those choices, in turn, can have a significant effect on environmental issues as well as the long-term viability of both industries as a whole.

Nevertheless, many land use choices made at the local level and considered in the project do affect the future viability of both industries. Acres of designated farmland, the number of residential development rights they contain, timber volume, conversion pressure based on development within and adjacent to farm and forest lands, and resource land conversion for environmental conservation purposes are all indicators that the Envision model tracks. All would be affected by the Citizen Committee's recommendations.

## The Charge to the Citizen Committee

With up to 100,000 or more new residents, any scenario for Skagit County 50 years out involves some tradeoffs. Despite different interests, though, Skagit County residents also share many common values. Poll after poll has demonstrated that the vast majority of County residents want to protect the environment *and* maintain natural resource industries. Economic development interests know it is just that combination that makes living in Skagit County—and locating businesses here—so attractive. The practical question is: how to do it? How should all of these interests be addressed together?

There are opportunities. Experience elsewhere indicates that more compact development, if done correctly, can actually make urban areas more attractive places to live. Transfers of development rights can compensate landowners for land that is either kept in a natural state or used for its natural resource values rather than converted for development. New or expanded rural villages or communities may be capable of taking more growth in selected areas while still retaining rural character. This could reduce growth pressures on the larger cities, especially those located in the floodplain, and reduce the effects of more dispersed rural development on ecological values and natural resource industries.



Within Skagit County, over the last decade there have been a number of examples of cooperative efforts to address issues that relate to Envision Skagit, which the Citizen Committee can draw on for both inspiration and lessons learned. A sample of these partnerships is provided in Appendix A on page 13.

The committee's work will not be easy. It starts with citizens talking to citizens. While that happens with the Citizen Committee, Envision Skagit will also help make it happen in the wider community. The Citizen Committee will have the support of technical experts, sophisticated models, and an experienced facilitator to debate and develop its recommendations. The wider community, however, also needs to understand and support those recommendations if they are to be implemented. So the charge to the Citizen Committee is to:

- grapple with the difficult issues
- think about the long-term consequences of today's policy decisions
- get to know different people and different aspects of the county than you've known before
- talk through conflicts and seek to understand differing values and world views
- talk with and listen to the wider public about all of this
- fashion recommendations that help keep Skagit County such an extraordinary place to live, work, and visit 50 years from now.

## Partnerships

The following are just a few examples of efforts in Skagit County involving diverse interests working together to achieve long-term goals to protect and conserve the environment, sustain natural resource industries, and create and maintain livable, economically strong communities.

**The Burlington Agricultural Heritage Density Credit Program** sells credits to allow high-density, mixed-use development in Burlington's historic downtown and retail core along I-5. The sale of these credits will generate funds for the purchase of farmland development rights by the county's Farmland Legacy Program. The program aims to create additional housing opportunities, a more vibrant downtown and commercial core, and a permanent boundary between Burlington and adjacent farmland on the city's west side. The city's partners in the program include local residents and business people, Skagitonians to Preserve Farmland, the Skagit Island Counties Builders Association, and Skagit County.

**The Anacortes Futures Project**, led by the Anacortes Chamber of Commerce together with the City and Port of Anacortes, is developing a forward-looking economic development Master Plan to "produce a comfortable and prosperous balance of revenue, services, healthy business environment and lifestyle that will serve our community for years to come." In its initial phase, the project looked at alternative future development scenarios for the Fidalgo Bay waterfront.

Upriver, **Imagine Concrete** formed as a grassroots organization in 2009 to encourage collaboration among citizens, business owners, Town officials and other stakeholders to plan and prioritize goals for the town's future. Community members have been busy working on several community-improvement projects identified in the initial visioning process. The Association of Washington Cities honored the Town's project with a Municipal Excellence Award in June 2010.

The **Skagit Delta Tidegates and Fish Initiative**, approved in April 2010, represents a formal commitment by the Western Washington Agricultural Association, the National Marine Fisheries Service, the U.S. Fish and Wildlife Service, and the Washington Department of Fish and Wildlife to develop a delta-wide landscape approach to address tidegate and floodgate maintenance in the Skagit delta area, together with estuary habitat restoration goals for recovery of Endangered Species Act (ESA) listed Chinook salmon in the Skagit River system.

The **Skagit Watershed Council** is a partnership of 18 diverse organizations working to protect and restore salmon habitat in the Skagit and Samish watersheds through collaboration, technical assistance and education. Over the past 10 years, the council and its member organizations have planned, obtained funds for, and undertaken 97 restoration projects in the county. One of the largest and most recent, the Wiley Slough Project, is restoring natural processes to 180 acres of the Skagit Wildlife Area at the south end of Fir Island, creating habitat for a wide variety of estuary-dependent species, including Chinook salmon.

The **Town of Hamilton**, working with local residents, Skagit County, and State and federal agencies, continues to pursue a long-term plan to relocate some 300 residents and their homes from the Skagit River floodway. An expansion of the town's urban growth boundary in 2008 added land for a new town center and residential area outside of the floodway, and enabled development of a large Janicki Industries manufacturing facility in the town. In addition to moving people out of harm's way, the plan also envisions restoring the floodplain to a more natural condition.

---

Scenario Descriptions

	Plan Trend	Agriculture-Forestry	Economic Development	Ecosystem
<b>Guiding Principles</b>	Apply existing laws, policies, and programs from current comprehensive plans and zoning. Where necessary, apply “most likely” assumptions for future.	Protect existing base of agricultural and forest lands and their profitable use, while meeting current regulatory requirements	Provide for economic, housing, and service needs of county’s residents and jurisdictions, recognizing economic importance of “quality of life” issues	Protect and restore ecosystem functions and processes to support self-sustaining populations of native species and long-term human uses of ecosystem
<b>Population Distribution</b>	-Size urban areas to handle 80% of new growth, remaining 20% to rural or resource lands	-Similar population distribution as in Plan Trend, with enhanced protections for resource lands	Size urban areas to handle 60% of new growth, 30% to expanded but walkable Rural Villages, and 10% to remaining rural or resource lands	-Size urban areas to handle 95% of new growth, remaining 5% to rural or resource lands.
<b>Urban Growth Areas (UGAs)</b>	-Urban growth areas (UGAs) may expand, but not into flood plain, agricultural or industrial-forest land. -Urban expansions allowed in secondary forest or rural resource where no other rural lands are available.	-Urban growth areas may expand, but not into designated natural resource lands: agricultural, forest, and rural resource.	-Some limited UGA expansions allowed in floodplain and farm land, targeting poorer quality soils and areas along I-5, especially for large industrial uses. - Encourage mixed-use and walkable communities, commercial redevelopment and infill in existing urban areas.	-Encourage more compact development and redevelopment in existing UGAs, by increasing overall urban densities/capacities by 50%. - When and if necessary, to accommodate population and job growth, Mount Vernon UGA may expand to SE, Sedro Woolley to NW, and Anacortes to SE.
<b>Rural and Resource Lands</b>	- Apply current rural and resource land zoning rules. -Development capped in Skagit River sub-basins when limits on exempt wells are reached. -Conserve 640 acres/yr of farmland through purchase of development rights.	-Allow no net loss of designated agricultural lands. -Explore transferring residential development rights off delta agricultural lands. -No additional regulations on forest lands. -Voluntary transfer/purchase of development rights from forest lands, also density incentive for permanent protection/management of large forest areas.	-Provide expansion potential for some Rural Villages outside of flood plain and resource lands (Alger, Conway hill, Birdsvie). -Also encourage employment and services in Rural Villages to create livable/walkable communities.	-No new development in channel migration zone (larger area than floodplain), on parcels entirely within 300m of salmon streams. -Limit development in “elk conflict zones” or within ¼-mile of heron rookeries
<b>Environmental Conservation/ Restoration</b>	-Purchase conservation lands at rate of \$1.5 million/yr, prioritizing undisturbed/natural land in Skagit floodplain. -Restore 2,700 acres in delta to estuary, prioritizing lower productivity farmland. -Restore 50 acres/yr of upriver floodplain	-Prioritize publicly owned lands for 2,700 acres of delta estuary restoration; any additional conservation on farm land achieved on voluntary, incentive basis. -Allow low-intensity timber harvest on some lands currently in conservation status.	Same as Plan Trend.	-Implement all restoration projects in Chinook Recovery Plan in delta and near-shore. -Triple Plan Trend levels for upriver restoration. -Conservation purchases help to achieve above restrictions on rural development (floodplain, wetlands, etc.)

Table 1: Highlights, Initial Scenarios for 2060. All scenarios developed for initial land use modeling purposes only



## Preliminary Indicators

This is the list of indicators currently under development.

- Several proposed indicators have been dropped from this list due to challenges related to data and methodology.
- Shaded indicators are those that **may not be included in the final model** due to constraints including: lack of data availability, limits on OSU programming time, or lack of viable indicator methodology.
- Some shaded indicators may be incorporated into the model as decision rules (e.g. ag/forest conversion risk) or may be analyzed outside of Envision (such as public service fiscal impact).
- **All final selected indicators** will be used to evaluate **each of the modeling scenarios**, including the Preferred Future scenario.

1. Urban/Rural Population Ratio	23. Stressor Index for Nearshore Habitats - possibly fall, depending on Kitsap work and Skagit interest/ability to tailor to local circumstances
2. Urban Residential Densities	24. Carbon Sequestration - simple model for now, hopefully better model/data in fall
3. Jobs/Housing Ratio	25. Pollinator Abundance - not likely in this iteration
4. Population Density	26. Acres of designated Ag-NRL
5. Infrastructure/Public Services Fiscal Impact – to be addressed in ECONorthwest fiscal analysis outside the model.	27. Acres Ag-NRL available for production
6. Infrastructure Demand - same as #5.	28. Loss/gain of Ag-NRL
7. Traffic Congestion/ Level of Service (LOS) – checking with Skagit Council of Governments.	29. Number of residential development rights in Ag-NRL
8. Value of Development Subject to Flood Risk	30. Ave. Ag-NRL parcel size
9. Commercial/Industrial Square Footage/ Capita	31. Ag-NRL conversion risk – likely a model input rather than indicator (indicator being Ag-NRL acres converted or at risk)
10. Vehicle Miles Traveled (VMT) /Greenhouse Gas Emissions (GHG)	32. Value of agricultural production – much harder to model than timber production due to diversity of ag crops.
11. Community Amenity Index –to be addressed in project narrative	33. Acres within dike/drainage system
12. Urban Open Space – will be input to UGA modeling.	34. Provision of ecosystem services – would require more sophisticated modeling of ag practices than currently able to do. Address in project narrative/ag econ study.
13. Forest Cover	35. Farmer density ratio – working with ECONorthwest
14. Wetland Cover (Non-Estuarine)	36. Forest land base
15. Chinook Salmon	37. Available “working forest lands”

16. Coho Salmon	38. Production per forest site class
17. Wildlife	39. Site index (should not change across scenarios)
18. Index of Change to High and Low Stream Flows	40. Timber volume – still waiting on DNR management data
19. Amphibian Distribution	41. Timber value
20. Songbirds	42. Forest products industry employment
21. Waterbird/Shorebird Habitat Index	43. Mill capacity – projected timber volume related to current Skagit mill capacity; may be of questionable value due to likely changes in technology
22. Pathogen/Water Quality Index – not unless USGS calibrates SPARROW model for Puget Sound.	44. Conversion risk – more likely a model input than indicator; similar to #31)

## **Steering Committee Members**

Gary Christensen	Skagit County Planning & Development Services
Jan Ellingson	Better Homes and Gardens Real Estate Executive
Margaret Fleek	City of Burlington
Carolyn Kelly	Skagit Conservation District
Paul Kriegel	Goodyear Nelson
Ryan Larsen	City of Anacortes
Rebecca Bradley-Lowell	City of Mount Vernon
Patsy Martin	Port of Skagit County
Jack Moore	City of Sedro-Woolley
Kevin Morse	The Nature Conservancy
Rebecca Ponzio	Puget Sound Partnership
Allen Rozema	Skagitonians to Preserve Farmland
Mike Shelby	Western Washington Agriculture Association
Shirley Solomon	Skagit Watershed Council
Margaret Studer	Futurewise
Dr. Gary Tollefson	Skagit Valley College
Larry Wasserman	Swinomish Indian Tribal Community

## **Steering Committee Vision Statement**

A future for the Skagit Valley that accommodates population growth and adapts to the impacts of climate change while supporting a high quality of life, including:

Ecosystem functions and processes that support self-sustaining populations of native plants, fish, and wildlife within and beyond the watershed, which also support long-term human uses, including tribal ceremonial, subsistence, and commercial fishing needs; a strong and diverse economy founded on commercially viable natural resource-based communities and industries including agriculture, forestry, fisheries and recreation and other innovative businesses and industries capable of serving local to international markets; and vibrant, well-planned and fiscally healthy cities, towns and rural communities, with associated infrastructure and transportation systems, which respect and maintain urban and rural lifestyles and character.

*Approved by the Steering Committee as a working draft on September 2, 2009*

## Technical Committee Members

### GIS Modeling Team

Josh Greenberg, Skagit County Geographic Information Systems  
John Bolte, Oregon State University  
Kellie Vache, Oregon State University

### Agriculture Technical Committee\*

Carolyn Kelly, Skagit Conservation District  
Don McMoran, WSU Extension  
Allen Rozema, Skagitonians to Preserve Farmland  
Kendra Smith, Skagit County Natural Resources Coordinator  
Karma Anderson, U.S. Environmental Protection Agency (agriculture specialist)  
Hart Hodges, Western Washington University

### Ecosystem Technical Committee

Martha Bray, Skagit Land Trust  
Mike Davison, Washington Department of Fish and Wildlife  
Roger Fuller, The Nature Conservancy  
Rick Haley, Skagit County Public Works  
Bob Kuntz, National Park Service (wildlife ecology)  
John Marzluff, University of Washington, College of Forest Resources  
John Riedel, National Park Service (glaciers, climate change)  
Gary Slater, Ecostudies Institute  
Stephen Stanley, Washington Department of Ecology  
Betsy Stevenson, Skagit County Planning & Development Services  
Claus Svendsen, Skagit Valley College  
Bob Warriner, Washington Department of Fish and Wildlife  
*John Lombard, Lombard Consulting, coordinator*

*\*Coordinated by Kirk Johnson, Skagit County Planning and Development Services*

### Forestry Technical Committee\*

Steve Courtney, Sierra Pacific Industries  
Paul Kriegel, Goodyear Nelson  
Paul McFarland, Washington Department of Natural Resources  
Ken Osborn, Arbor Pacific Forestry Services  
Kendra Smith, Skagit County Natural Resources Coordinator  
Steve Tift, Longview Timber Company  
Paul Wagner, Atterbury Consulting

### Growth Management Technical Committee\*

Gary Christensen, Skagit County Planning & Development Services  
John Everett, Skagit Council of Governments  
Kelly Moldstad, Skagit Council of Governments  
Rebecca Bradley-Lowell, Mount Vernon Community and Economic Development  
Ryan Larsen, Anacortes Planning and Community Development  
Margaret Fleek, Burlington Planning and Community Development  
Rick Cisar, Concrete Planning Department  
John Doyle, Town of La Conner  
Ed Knight, Swinomish Indian Tribal Community  
Ted Gage, Samish Indian Nation  
Jack Moore, Sedro-Woolley Planning and Community Development  
Sara Young, Port of Skagit County  
*Mark Personius, Growth Management Consultant, technical assistance*

### Housing and Development Focus Group (convened to help develop the Economic Development Scenario)

Jan Ellingson, Better Homes and Gardens Real Estate Executive  
Denny LeGro, LeGro and Assoc.  
John Milnor, Guardian NW Title  
Tom Cavanaugh, Fisher & Sons  
Charlie Guildner, Peoples Bank  
Cory Ertel, Skagit/Island County Builders Association  
Chris Deasy, Christopher Homes Inc.  
Vickie Crook, Better Homes and Gardens Real Estate Executive



## Glossary

**Built environment:** The human-made surroundings that provide the setting for human activities, ranging in scale from homes and yards to neighborhoods and cities.

**Carbon sequestration:** The removal of carbon from the atmosphere and its storage in forests or soils through physical or biological processes, such as photosynthesis.

**Clustered development:** The placement of new residences in close proximity to one another to protect environmental or natural resource values in the surrounding landscape.

**Conversion pressure:** Pressure to convert the use of land from one purpose (e.g., agriculture) to another (e.g., residential or commercial development).

**Development right:** The right to build a home or commercial structure on a parcel of land.

**Ecosystem function:** A result of the interaction of species or species and their physical environment that benefits other species, including humans, such as the cycling of nutrients or the flow of chemical energy through the food web.

**Ecosystem process:** A mechanism by which one or more ecosystem functions are performed (e.g., the hydrologic process, decomposition of organic materials, etc.).

**Eelgrass:** A submerged marine plant of the genus *Zostera*. Beds of eelgrass provide especially rich and complex habitats for marine life.

**Estuarine habitat:** Habitat for fish and wildlife located in estuaries, where freshwater mixes with saltwater.

**Farmland, designated:** Land that has been designated by a local government for long-term commercial agricultural use, pursuant to the State Growth Management Act.

**Fiscal viability:** The ability of a government to pay for desired services based on an adequate source of revenues.

**Floodgates:** One-way check valves at the end of a drainage system that allow drainage water to flow to a stream while preventing water from the stream from entering the drainage system during high flows.

**GMA:** The Washington State Growth Management Act (see “Growth Management Act” below).

**Greenhouse gases:** Atmospheric gases that contribute to climate change by absorbing infrared radiation produced by solar warming of the Earth's surface.

**Growth Management Act:** The Washington State law, RCW 36.70A, that regulates how local governments should plan for and regulate land uses and population and economic growth.

**Growth Management Act Steering Committee:** The committee responsible for establishing countywide planning policies in Skagit County, which govern local plans under the Growth Management Act. Mem-

bers include the three County Commissioners and the Mayors of Anacortes, Burlington, La Conner, Mount Vernon and Sedro Woolley.

**Heron rookery:** A breeding ground for herons.

**Indicator:** A quantitative measure used in the Envision Skagit model to evaluate the effect of a scenario on an issue of concern for the project's goals (e.g., urban residential density).

**Mixed-use development:** A development or group of developments that combine multiple land uses, such as residential, commercial, industrial, office, or institutional.

**Monoculture:** The cultivation of a single crop on a farm or across a farming area.

**Multiplier effect:** A chain reaction from economic activity that generates additional activity, such as when wages from a business are spent purchasing goods and services, which then support additional wages that are spent on additional goods and services, etc.

**Pacific Flyway:** The seasonal route along the Pacific coast followed by birds migrating to and from their breeding areas.

**Raptor:** A bird of prey, such as a hawk, eagle, or owl.

**Residential density:** The number of housing units within a given area, typically measured per acre.

**Rural Villages:** Unincorporated, compact, and predominantly residential rural communities providing limited commercial and community services, typically including a post office, church, elementary school, fire hall, grocery store, service station, restaurant or other small retail business.

**Scenario:** A hypothetical characterization of future conditions in Skagit County based on explicit assumptions about land use policies and the behavior of landowners.

**Skagit Council of Governments:** A voluntary organization of local governments in Skagit County that address shared concerns, including regional transportation planning. Members include Skagit County, Skagit PUD, Skagit Transit, all Cities and Towns within the county, the Swinomish Tribal Community, the Samish Indian Nation, and the ports of Anacortes and Skagit County.

**Songbird:** A bird with a complex vocal organ, typically associated with forested or human-altered habitats.

**Sovereign authority, Indian tribes:** The inherent authority of indigenous tribes to govern themselves within the United States, consistent with treaties between the tribes and the federal government.

**Steering Committee:** The group of local leaders and representatives of key organizations and interest groups that Envision Skagit has consulted on key project-related decisions. Members are listed on page 17.

**Stumpage value:** The market value of raw timber (i.e., prior to any processing) that has been harvested in a particular place over a particular time (e.g., in Skagit County over one year).

**Technical committee:** A group of technical experts that Envision Skagit has consulted on key technical issues for the project. There are four separate technical committees for agriculture, the ecosystem, forestry, and growth management. Members are listed on page 18.

**Tidegates:** One-way check valves at the end of a drainage system that allow drainage water to flow to a marine body during a low tide cycle and then close to prevent saltwater from entering the drainage system when the tide rises.

**Transfer of development rights:** The removal of development rights from one property in exchange for the right to develop another property more intensively.

**Treaty rights, Indian tribes:** Rights reserved by Indian tribes through treaties with the federal government, such as the right to harvest a certain quantity of fish at a certain place and time.

**Waterbird:** A bird that wades, swims, or dives in fresh or salt water. The waterbird indicator for Envision Skagit focuses on ducks as well as birds that use the marine shoreline.