Natural Resource Lands Profile

Introduction

The goals and policies set forth in the Natural Resource Lands Element represent a commitment to a viable natural resource economy in Skagit County, including natural resource lands industries and healthy natural resource systems. This section supports the goals and policies in the Natural Resource Lands Element by summarizing current conditions and describing the desired management of natural resource lands that the County will be addressing throughout the 20-year planning period.

The Element supports long-tem commercial uses on natural resource lands and allows for support services and businesses that are compatible with these uses. Other uses such as residential and recreational uses on Natural Resource Lands, if allowed, are to be compatible with the long-term commercial use of these lands.

Natural Resource Land Designations

The natural resource lands designation indicates areas where Skagit County land-use plans, regulations, and incentives are intended to promote long-term, commercially significant resource use. These natural resources provide valuable products and raw materials that support jobs, create tax revenues, and are an important component in regional and local economies and markets. Farmlands and forests also provide aesthetic, recreational, and environmental benefits to the public, while contributing to a diverse community lifestyle and character. The land use zoning designations for natural resource lands are:

Agricultural – Natural Resource Lands (Ag-NRL)

Industrial Forest – Natural Resource Lands (IF-NRL)

Secondary Forest – Natural Resource Lands (SF-NRL)

Rural Resource – Natural Resource Lands (RRc-NRL)

Mineral Resource Overlay (MRO)

Agricultural Natural Resource Lands

Agricultural Resource Lands are those lands with soils, climate, topography, parcel size, and location characteristics that have long-term commercial significance for farming. Skagit County designates agricultural lands primarily based on the presence of prime agricultural soils. These lands are concentrated in the fertile floodplain of the Skagit River as it flows into the Puget Sound. There are also agricultural lands designated along the upper Skagit Valley in areas of rich alluvial soils. Based on the designation criteria presented in Chapter 4, Natural Resource Lands, Skagit County has designated an estimated 89,169 acres of land as Agricultural lands, although significantly fewer acres are in full agricultural production in any given year. Designating valuable agricultural soils protects the resource for future use, regardless of current farming conditions. Designating also ensures a cohesive and distinct agricultural area within Skagit County, and limits the extent to which non-agricultural uses can conflict and interfere with farming.

Primary crops and agricultural products in Skagit County include apples, berries, floriculture and sod, potatoes, peas and other vegetables, vegetable seeds, dairy, and ornamental nursery stock. Skagit County's annual Tulip Festival brings in over $60 million in economic activity, adding to the over $300 million in gross farm income annually – making agriculture a major contributor to the health of both the regional and Skagit County economies.

Despite the current strength of the agricultural industry in Skagit County, there are some significant challenges facing agriculture, primarily in maintaining the land base and ensuring long-term viability. Pressures to convert agricultural lands to residential, wildlife habitat, and other uses, conflicts with neighboring non-resource uses, regulatory limitations on farming, and fluctuating economic conditions all add to the industry's challenges.

The Natural Resource Lands Element promotes preservation of the agricultural land base, reduction of land use conflicts, and support for a diverse and economically strong agricultural industry. Conservation strategies are critical for preserving and strengthening the agricultural land base. These include a strong Purchase of Development Rights (PDR) program, and the development of a GIS database for natural resource lands. Right-to-Manage Natural Resource Lands goals, policies and ordinances promote a clear mandate for agricultural production as a priority on agricultural lands. The strength of the agricultural industry is promoted in the Natural Resource Lands Element by integrating support and information services in a Natural Resource Lands Clearinghouse, promoting the agricultural industry and supporting

services and businesses that sponsor the development and diversification of agricultural products.

Industrial and Secondary Forest Resource Lands

Forest Resource Lands are those lands with soils, parcel size, and location characteristics that have long-term commercial significance for forestry. Based on the designation criteria presented in Chapter 4, Natural Resource Lands, Skagit County has designated an estimated 314,576 acres of land as Industrial Forest Natural Resource Land (IF-NRL) and 38,750 acres as Secondary Forest Natural Resource Land (SF-NRL). Industrial Forest lands form the bulk and core of the commercially significant forest resource, with a surrounding Secondary Forest designation which provides a transitional density between that of Rural areas and Industrial Forest. Secondary Forest also offers the potential for smaller-scale commercial timber operations, supporting natural resource industries, and limited residential uses. These lands are concentrated in the slopes and foothills of the Cascade Mountains in the eastern and northern portions of the county.

Primary forest products in Skagit County include: raw logs, primarily for the domestic market, with some exports; lumber, both green and kiln dried; wood chips; and hog fuel (a mix of bark, sawdust, and planer shavings). Production of the later is expected to increase due to the increased development of cogeneration plants as energy sources for industry. Value-added products and industries include local cabinet making shops, engineered wood products, such as beams, and small fine wood product shops producing anything from custom wood furniture to musical instruments.

Aside from wood products, forestry is a significant contributor to the economy, environment and lifestyle in Skagit County. Support industries include logging, trucking, and equipment sales & service, small trucks, fuel, supplies and repair services. Spin-off services, such as retail grocery, clothing, restaurants, and other services also rely heavily on a healthy natural resource lands industry. An often overlooked benefit of good forest management is the industry's contribution to and protection of clean air, water, fish & wildlife habitat, and recreational activities.

Currently, there are significant challenges facing the industry, primarily in maintaining the land base and promoting a viable, long-term forest industry. The industry, and the County have seen a decline in the strength and role of forestry in the Skagit County economy over the past 20 years – much of this due to declining harvests on Federal and State lands. Other challenges result from pressures to convert forest lands to other uses; regulatory requirements, economics and market factors.

The Natural Resource Lands Element promotes preservation of the forest land base, reduction of land use conflicts, and support for a diverse and economically strong forest industry. Conservation strategies are critical for preserving and strengthening the forest land base and include incentives to conserve, and disincentives to convert, forest land to other uses. Right-to-Manage Natural Resource Lands goals, policies and ordinances promote a clear mandate for forest management as a priority on forest lands. Strength of the forest industry is promoted in the Natural Resource Lands Element by integrating support and information services in a Natural Resource Lands Clearinghouse to promote the diversification of forest products and encourage development of value-added products.

Rural Resource Lands

Rural Resource lands are, generally, areas that have the combined land and land-use characteristics of long-term agricultural, forest or mineral lands, and have the potential for multiple use or smaller scale resource management. Because of this mixture, the goals, objectives and policies applicable to both Agricultural and Forest Resource lands are applicable to the Rural Resource lands. Rural Resource lands generally are not managed for industrial-scale farming or forestry but nevertheless contribute to the natural resource land base. Where the Mineral Resource Overlay designation is also applied, industrial-scale mining can occur, however. Based on the designation criteria presented in Chapter 4, Natural Resource Lands, Skagit County has designated an estimated 25,658 acres of land as Rural Resource Natural Resource Land (RRc-NRL).

The challenges facing owners of Rural Resource land generally relate to the economic viability of managing small parcels of resource lands, and pressures to develop other uses, such as residential. This is particularly true where Rural Resource lands are located between larger natural resource land parcels and Rural designated areas.

The Natural Resource Lands Element promotes flexibility of uses on Rural Resource lands, while providing for incentives and support for small agricultural, forest and mining uses. Rural Resource lands allow for a range of uses that are complementary to natural resource land preservation. The Natural Resource Clearinghouse will provide further direction and guidance for owners of Rural Resource lands.

Mineral Resource Overlay

The Mineral Resource Overlay is an overlay to Forest and Rural Resource lands, where geologic deposits and land use characteristics have long-term commercial significance for mineral extraction. Based on the designation criteria presented in Chapter 4, Natural Resource Lands, Skagit County has designated an estimated 60,134

acres of Mineral Resource Overlay. The predominant resources mapped in the Mineral Resource Overlay are sand and gravel construction materials. These resources are typically associated with alluvial and glacial deposits. Quarry rock and valuable minerals such as olivine-rich dunite and limestone have also been designated.

The challenges facing the mineral resource industry primarily relate to conflicting use concerns with neighboring residential uses. With increasing demands for construction materials in developing urban areas, especially in the Puget Sound region, it becomes increasingly important to identify and preserve access to the mineral resources of Skagit County. However, access to much of the county's minable resources has already been precluded by residential development. Skagit County's approach to designating mineral lands is to protect what is remaining, now and for the future. Doing so requires that mineral lands of long-term commercial significance be designated in areas where the impacts from mining, when it occurs, can be reduced to the greatest extent possible.

During the recent update of the Mineral Resource Overlay, Skagit County conducted an in-depth review of geologic formations and potential mineral resource deposits. This mapping update confirmed many known mineral resources and identified new mineral resources. A very few currently conforming mining operations did not meet the criteria for mineral resource land overlay designation as applied during this mapping review. Due to the economic conditions of these operations and their beneficial access to markets, Skagit County will consider these existing operations as conforming uses within the provisions of the Mineral Resource Overlay.

It is important to ensure that mining policies and regulations, in addition to protecting the resource and its related activities, also protect public health, safety and the environment. These policies and their implementing regulations work in concert with other federal and State laws to ensure that mining operators and surrounding land owners remain good neighbors.

The Natural Resource Lands Element also establishes Right-to-Manage Natural Resource Lands goals and policies to promote a clear mandate for mineral extraction activities as a priority on lands designated as Mineral Resource Overlay. The vitality of the mineral industry is also promoted in the Natural Resource Lands Element by integrating support and information services in a Natural Resource Lands Clearinghouse and allowing support services and businesses to encourage development of 'value-added' products.

Natural Resource Land Support Mechanisms

Right to Manage Natural Resource Lands

Where non-natural resource land uses (primarily residential uses) extend into natural resource areas or exist side-by-side, natural resource management operations are frequently subject to nuisance complaints. When complaints relate to the undesired effects of properly regulated and conducted natural resource lands activities, natural resource land managers are required to set aside time and financial resources in order to respond.

Right-to-Manage Natural Resource Lands policies are intended to promote a good neighbor policy between natural resource lands and non-natural resource land property owners by advising purchasers and users of property adjacent to or near natural resource land management operations of the inherent potential difficulties associated with such purchase or residence. It is essential that neighbors and residents of natural resource lands better understand and be prepared to accept attendant conditions and the natural result of living in or near natural resource lands and rural areas. The Right to Manage Natural Resource Land goals and policies establish mandatory disclosures for purchasers and users and provides authority to the Skagit County Assessor's Office to track these disclosures for the long-term protection of productive use of Skagit County's valuable resource lands.

Natural Resource Lands Information Clearinghouse

The Natural Resource Lands Element introduces the concept of a Natural Resource Lands Clearinghouse to integrate the support and information services for natural resource landowners and industries. The goal of the Clearinghouse is to efficiently provide the following information and support: Information on resource land conservation, including loans and grants, and conservation easements;

- Information and support for alternatives to land conversion;
- Information on sustainable management approaches;
- Promote sustainable management practices;
- Encourage economic and market opportunities;
- Promote Skagit County products and branding; and
- Educate and inform public on Natural Resource Land values.

Soils Used in Designating Agricultural and Forest Resource Lands

The Natural Resource Conservation Element uses soil classifications from the USDA Soil Conservation Service (SCS) and the Washington State Department of Revenue's Private Forest Land Grading (PFLG) system in designating Agricultural Resource, Forest Resource and Rural Resource Lands, abbreviated as follows:

Agricultural Lands Soils

Designation of Agricultural Lands relies, in part, on the presence of various "Prime Alluvial" soil types indicated below. Descriptions of these soil types can be found, by SCS map unit number, in the Soil Survey of Skagit County Area, Washington, USDA Soil Conservation Service, 1998.

Prime Alluvial Soils

SCS Map Unit #	Soil Description
21	Briscot fine sandy loam
87	Larush fine sandy loam
88	Larush silt loam
89	Larush variant silt loam
92	Minkler silt loam
123	Skagit silt loam
96	Mt. Vernon very fine sandy loam
130	Snohomish silt loam
136	Sumas silt loam
157	Wickersham silt loam, 0-8% slopes

Prime Alluvial Soils (if artificially drained)

SCS Map Unit #	Soil Description
10	Bellingham silt loam
11	Bellingham mucky silt loam
34	Cokedale silt loam
97	Mukilteo muck
101	Nookachamps silt loam
102	Norma silt loam
114	Samish silt loam
141	Tacoma silt loam
142	Tacoma silt loam, drained

Prime Alluvial Soils (if protected from flooding)

SCS Map Unit #	Soil Description
56	Field silt loam
57	Field silt loam, protected
98	Mukilteo Variant muck
118	Sedro-Woolley silt loam

Forest Resource Land Soils

The soil criteria for designating Industrial Forest and Secondary Forest lands in Skagit County is derived from the Private Forest Land Grading system (PFLG). PFLG was a five year mapping program completed in 1980 for the purpose of forest land taxation. It was funded by the Washington State Department of Revenue in cooperation with the Department of Natural Resources, Soil Conservation Service (SCS), USDA Forest Service and Washington State University. State and private lands which had the potential of supporting commercial forest stands were surveyed. The Site Index

Range is a measurement of the anticipated height of commercial timber species within a particular time span. For Skagit County, located in Western Washington the site-class codes are based on a 50-Year site index. The site-classes for Skagit County as derived from the PFLG soil survey are as follows:

Site-Class	Site Index Range
PFLG I	137 feet +height
PFLG II	119-136 feet
PFLG III	97-118 feet
PFLG IV	76-96 feet
PFLG V	1-75 feet

Rural Resource Land Soils

Designation of Rural Resource lands is determined, in part, by the application of both systems, using PFLG classes 1 – 3, and the SCS units listed below:

Prime Upland Soils

SCS Map Unit #	Soil Description
59	Giles silt loam
60	Giles Variant silt loam
61	Gilligan silt loam
100	Nargar loam, 0-8% slopes
116	Sauk silt loam
119	Sehome loam, 0-8% slopes
146	Tokul gravelly loam, 0-8% slopes

Mineral Resource Overlay

Skagit County designates, as Mineral Resource Overlay, the following geologic formations, subject to consistency with other land-use designation criteria. Exclusionary criteria may result in some, otherwise qualified mineral resources undesignated. Refer to U.S. Geological Survey and Washington State Department of Natural Resources survey maps for explanations of the classifications used below. These maps are available for viewing at Skagit County Planning & Development Services.

Sand and Gravel Deposits

Qa	Quaternary Alluvium
Qa(s)	Holocene Alluvium – Sand
Qaf	Holocene Alluvial Fan Deposits
Qga	Advance Glacial Outwash
Qgas	Advance Glacial Outwash – Sand
Qgdm(e)	Everson Glaciomarine Drift
Qgo	Glacial Outwash
Qgo(e)	Everson Interstade – Glacial Outwash
Qgo(es)	Everson or Sumas – Glacial Outwash
Qgo(i)	Ice-Contact – Recessional Outwash
Qgo(s)	Glacial Outwash – Sumas Stade
Qgoc	Glacial Outwash, silt and clay – Vashon Stade
Qgom(s)	Glacial Outwash, marine – Sumas Stade
Qoa	Older Alluvium
Qoa(s)	Older Alluvium – Sand Facies

Bedrock Formations

JTRu(ts)	Dunite
JMV(u)	Greenstone
JI(f)	Greenstone
PMPms(c)	Limestone