

**Agriculture in the Watersheds:
Part Two of a Three-Part Report to the Shared Strategy for Puget Sound**

*Prepared by Dennis Canty and Helena Wiley, Evergreen Funding Consultants
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Agriculture in the Watersheds offers an overview of the trends affecting agriculture in the twelve counties adjacent to Puget Sound. This is the second report in a series of three looking at issues affecting both farms and salmon around the Sound.

This report describes the current trends in county agriculture including market and profitability trends, land conversion trends, existing salmon-friendly projects and actions, and concerns farmers have about salmon recovery. By understanding the various trends affecting farmers and their concerns about salmon recovery, salmon advocates will be able to make more informed decisions in watershed planning actions involving the agricultural community, as well as be in a position to recommend actions and programs that could benefit both fish and farms.

The information reported here is based on research and interviews of county level officials including conservation district staff, county staff, and agricultural experts. Further detailed communication between watershed planners and agricultural organizations will be necessary to fully understand issues that need to be addressed on agricultural lands.

Click on the county name below for a full description of agriculture in the county. Be sure to use the Acrobat navigation arrows (not your browser's back button) to come back to this page. You can read the entire document by scrolling down or using the page up/page down keys on your keyboard.

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Agriculture in Clallam County Watersheds

Overview

Clallam County ranks 7th in acreage and 10th in sales among Puget Sound counties, with main products consisting of dairy, beef cattle, vegetable seeds, and lavender. There are also many non-commercial horse farms. Farming is concentrated in the lower Dungeness River valley. Dairies and beef cattle are in decline due to higher costs and lower prices. The county has faced a significant loss in farm acreage, largely due to conversion of farmland to residential use in the Port Angeles and Sequim areas. Farmers have been actively involved in water conservation efforts and in watershed salmon planning work through their engagement in the Dungeness River Management Team.

Profile of Farming

Clallam County had approximately 21,000 acres in commercial farmland in 1997, producing about \$6 million worth of products. Main products include dairy, beef, vegetable seeds, and specialty crops including organic vegetables and lavender. A significant amount of land in the Dungeness watershed is also used for non-commercial horse farms. Unlike other areas of Puget Sound, most farms rely on irrigation for their operations, because the watershed falls in the rain shadow of the Olympic Mountains.

Clallam County had about 300 farms in 1997, down from a little over 400 in 1982. The loss of commercial acreage during that period was approximately 7,000 acres or 20%. Change in acreage of non-commercial farms is unclear. Almost 70% of farms are less than 50 acres, and the average farm size is 72 acres¹.

Quick Facts on Clallam County

Acreage of Farmland

1982: 28,342
1997: 21,134
1997 Rank: 7th *

Main Crops by Sales 1997

Dairy
Nursery and Greenhouse**

Market Sales

1997: \$6 million
1997 Rank: 10th *

Number of Farms

1982: 407
1997: 292

Average Farm Size

1982: 70 acres
1997: 72 acres

*Rank in 12 Puget Sound Counties

**This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

Source: U.S. Census of Agriculture

What Trends Affect Agriculture?

Commercial agriculture is suffering from decreasing prices and increasing costs.

Some Clallam County farms have been hit particularly hard by lower product prices and increases in costs, while others have enjoyed increased profitability. Dairies are struggling because of lower product prices and higher production-

related costs. Farms are being affected by a loss of infrastructure as the critical mass of farms has been fragmented and no longer supports ancillary businesses. Beef operations are also seeing dwindling profit margins due to increases in rent for grazing land. One large organic farm has enjoyed huge growth and profitability and many small lavender farms, often selling value-added products, also seem to be profitable.

Development pressure is a significant threat to agriculture.

Conversion of agricultural land is one of the biggest threats to agriculture in the Dungeness valley. Most farmland is reportedly leased or rented, often from absentee landowners who are heirs to the farms. A significant amount of farmable land is currently unmanaged as owners decide whether to sell to developers or lease to farmers. A recent voter initiative in the late 1990s to fund farmland protection was not approved by voters. However, a recent federal grant matched locally by the county will protect approximately 40 acres of prime farmland through the purchase of development rights. This may serve as a model for a way to protect farmland in the future.

There have been increases in direct marketing on small farms.

Roughly a quarter of farms are estimated to be direct marketing at least a portion of their produce, and there seems to be an increase over the recent decade in direct marketing strategiesⁱⁱ. A number of small organic and small lavender producers sell at area farmers markets. A few community supported agriculture operations are active in the area. Agro-tourism brings in a fair amount of profit for lavender farms, many of which have on-farm stalls or stores to sell raw and value-added products like lavender soaps during the annual Lavender Festival.

Lavender has emerged as a primary local specialty crop.

Small lavender farms have become popular over the past several years. Lavender farms are generally not the primary source of income for operators. The Lavender Growers Association unites lavender producers in order to share ideas and cooperate in marketing and product processing. Likewise organic production has increased in the watershed. While one organic producer has been very successful, many small organic operations pass on word of a challenging workload relative to the profit to be made from their productsⁱⁱⁱ. Approximately 25% of operations are likely to be producing in specialty crops though specific statistics are not available^v. A significant acreage in the county is used for non-commercial horse farms.

Farms and Salmon

The watershed serves as a model for cooperative farm/fish efforts.

Farmers and salmon advocates in the Dungeness watershed are reported to cooperate on most recovery issues. The clearest example of cooperation is the Dungeness River Management Team (DRMT), which brings a variety of watershed stakeholders, including environmental, irrigation, and tribal interests together to conserve water and reduce use. Through a variety of sources, including the Salmon Recovery Funding Board, funding has been provided for water conservation and salmon recovery projects, and local groups working cooperatively to address water use has resulted in a generally trusting and agreeable relationship^v. An important farming interest group representing many growers in the area is the Dungeness River Water Users Association. They have been active members of the DRMT, looking for cooperative ways to share the responsibility of water conservation. Other projects coordinated by the Clallam Conservation District include piping irrigation ditches to decrease pollution to Dungeness Bay and to conserve water, and cost-share assistance for the development of farm conservation plans and implementation of agricultural best management practices.

Farmer concerns include land acquisition and buffers.

In terms of farmer concerns, many are reportedly wary of land acquisition as a strategy for salmon conservation given the scarcity of land available for farming and the continued high rates of acreage loss. This concern is also reportedly true in conversations about buffers, which would also take land out of production. The Conservation Reserve Enhancement Program (CREP) has had limited participation by commercial farms in the Dungeness, reportedly due to concerns that the land will be unusable for agriculture after the 15-year maximum lease, and that it will take valuable land out of production. According to Conservation District staff, much of this concern stems from the fact that most land is not owned outright by farmers, but leased and rented, thus farmers already have limited control over the fate of the land they farm^{vi}.

The Future of Elwha-Dungeness Farming

Many large-scale commercial operations in the Dungeness area are threatened. With the loss of processing plants for beef and dairy operations, many remaining farms are struggling. The Conservation District staff reports that farmers have come forward with requests for programs that aid in marketing local products^{vii}—this option may hold promise for the few remaining dairy and beef operations in the Dungeness valley. Small-scale fruit and vegetable farms as well as specialty crops like lavender are likely to continue to be profitable in the Dungeness area.

Agro-tourism continues to grow as lavender farming becomes more established in the region.

The rapid rate of farm acreage loss in Clallam County has had significant effects on remaining farms and farmers. Fragmentation has already occurred with significant residential development. This seriously threatens the few remaining dairies, which are reportedly finding it hard to co-exist with residential neighbors. Land valued for development is of particular concern to beef operations, who no longer can find grazing land cheap enough to make a profit, given the prices beef is currently fetching in the market. Because most farmers do not own their land and property values continue to rise at rapid rates, it is difficult to determine what the future holds for farm acreage in the Dungeness area. With farmland protection programs in place, several large tracts of land in the lower Dungeness would likely be protected. Three farmland tracts have already had development rights retired through private means, and other large tracts could follow. The future of farming in the Dungeness will likely include an increase in small-scale diversified operations and value-added products, and continued decreases in the number of large-scale commercial farms.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Holtrop, Joe. Clallam Conservation District Manager, personal communication, February 2004. *Note: No specific statistics are available on direct marketing in the county.*

ⁱⁱⁱ *ibid.*

^{iv} *ibid.*

^v Renew America. 1998. National Awards for Environmental Sustainability. Source available at: http://sol.crest.org/environment/renew_america/winars98.htm.

^{vi} Holtrop, Joe.

^{vii} *ibid.*

Agriculture in Island County Watersheds

Overview

There is little agriculture in Island County – the county ranks 11th in acreage and 9th in sales among the 12 Puget Sound counties. Aside from a handful of large dairies, most farms are small livestock, vegetable, and specialty crop producers. Dairies have declined in number and profitability, as is the case throughout the Puget Sound region. While there is not a great deal of development pressure on Whidbey Island, the long-term decline in the profitability of farming is resulting in the subdivision of large parcels and some conversions to non-farm uses. Only two sub-watersheds of Whidbey Island and one watershed on Camano Island are salmon bearing; education efforts are underway in these areas to address salmon habitat and best management practices.

Profile of Farming

Island County had approximately 21,000 acres in commercial farmland in 1997, producing about \$10 million worth of products. The largest single sector by sales by far is dairy; though significant land is dedicated to haying and many small-scale growers produce flowers and produce. Hay is found in central Whidbey Island and small-scale vegetable and specialty producers are found in the South Whidbey area.

Island County had about 260 farms in 1997, down from a little over 300 in 1982. The loss of commercial acreage during that period was approximately 5,000 acres or 24%. Change in acreage of non-commercial farms is unclear. Two-thirds of farms are less than 50 acres, and the average farm size is 61 acres¹.

Quick Facts on Island County

Acres of Farmland
1982: 20,853
1997: 15,900
1997 Rank: 11th*

Main Crops by Sales 1997
Dairy

Market Sales
1997: \$10.5 million
1997 Rank: 9th*

Number of Farms
1982: 308
1997: 261

Average Farm Size
1982: 68 acres
1997: 61 acres

Source: U.S. Census of
Agriculture

*Rank in 12 Puget Sound
Counties

What Trends Affect Agriculture?

Commercial dairies are suffering from decreasing prices and increasing costs.

Historically, large dairy and wheat operations were active in the county. However, dairies have decreased in number over the last decade, and only a few are still active. Decreases in milk prices combined with higher transportation costs and costs associated with dairy nutrient management have been factors in

recent closures, as well as farmers ready to retire without heirs interested in farmingⁱⁱ. A few wheat producers are still active in the county. Current commercial activities include seed crops, nursery, and small-scale diversified operations.

Development pressure threatens agriculture.

Conversion of agricultural land is a concern in Island County. Development of farmland is reportedly a tempting option for some farmers who are not able to generate enough income from agricultural activities and whose children are not interested in farmingⁱⁱⁱ. A Public Benefit Rating System allows for some tax reduction for certain agricultural activities, and the Open Agriculture designation, available to farms actively producing from their land, also offers a tax reduction. The County encourages the use of “Earned Development Units” on agricultural land, which protect a majority of land on a given parcel under conservation easement while allowing intensive development on a specific portion of a parcel. To date, the County has not received much interest from farmers in this strategy^{iv}.

Direct marketing is common on South Whidbey Island.

Four farmers markets are active on Whidbey Island, two dedicated to organic produce in the south of the island. The South Whidbey Tilth and the Bayview Corner organic market are active and well-organized groups in the area. Some farmers sell flowers by the roadside and several farm stands sell produce. There seem to be an increasing number of small scale farms incorporating direct marketing.

Organics are an emerging specialty crop type.

There is a concentration of organic production on South Whidbey Island. Some value-added products such as honey, soap, and cheese, are also sold in farmers markets. Value-added products are probably increasing in production, though likely at a slow rate.

Farms and Salmon

Salmon recovery actions have been taken on farmland.

Salmon are only found in two watersheds on the south of Whidbey Island and one on Camano. Small and large-scale agricultural producers can be found in these watersheds, and the Conservation Districts has been active in providing technical assistance and education to farmers in the area. A new ordinance requiring fenced buffers or decreased-width buffers coupled with best management practices (BMPs) in Island County agricultural zones has recently

been put into effect. Small-scale livestock owners who are often new to farming reportedly welcome technical assistance in installing BMPs to help both the farming operation and the environment. Cost-share assistance is available to farmers to install fencing along buffers through Natural Resource Conservation Service programs as well as through a Centennial Clean Water Grant awarded to the county, Whidbey Island Conservation District, and the Snohomish Conservation District.

Farmer concerns include taking land out of production.

Some commercial farmers are reportedly concerned about buffer requirements that are currently in effect in Island County that could take large amounts of land out of production. The buffer requirements, which include partial exemptions for existing agricultural uses with best management practices in place, are some of the first required conservation actions to be implemented in the Puget Sound region. Many farmers are reportedly waiting to see how Growth Management requirements play out in other parts of the region before adopting the current requirements on their individual farms^v.

The Future of Island County Farming

With large farms subdividing and new non-commercial farms coming to the area, there is a shift towards small acreages^{vi}. Many commercial farms have left the area, and a lack of profitability has led to the conversion of farmland in the county. Tax breaks on property taxes and conservation easements offer a partial solution, but have not helped those farms that can no longer make a profit on the land. Rural landowners on non-commercial horse and livestock farms are increasing in number and represent a new audience for conservation. There will be a need to continue education efforts with new landowners about the environmental consequences of their practices and to assist with water quality protections on these small parcels. Further cost-sharing and incentives may increase farmer interest in buffer installation and allow economically feasible options for farmers.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Klug, Herb. National Resource Conservation Service, personal communication, April 2004.

ⁱⁱⁱ Kroll, Keeva. Island County Duty Planner, personal communication, April 2004.

^{iv} *ibid.*

^v Osterman, Carol. Whidbey Island Conservation District, personal communication, April 2004.

^{vi} *ibid.*

Agriculture in Jefferson County Watersheds

Overview

Jefferson County has fewer than 150 farms (fewest among Puget Sound counties) and they tend to be small in size except for a few large beef and dairy farms in the Chimacum area. Most farmers in the county have off-farm sources of income. Crops include vegetables, hay, and other crops for local markets. The number of farms has remained stable in recent years, and there is no appreciable conversion pressure. There has been a strong history of cooperation among farmers, the conservation district, and other organizations on conservation projects, particularly to address salmon habitat protection and improvement.

Profile of Farming

Most of the agriculture in Jefferson County's Puget Sound watersheds can be found in WRIA 17, the Quilcene-Snow watershed. About 13,000 acres of land was being used for agriculture in 1997, generating around \$4 million from agricultural productsⁱ. There is a mix of commercial and family farm operations, growing dairy, beef, horses and hay, as well as some vegetables. The largest pocket of farms can be found in the Chimacum area, where several beef operations and dairies are located. About 80% of the agricultural land base is in this part of the watershed.

Jefferson County has a small number of farms in comparison with other Puget Sound counties— 144 farms in 1997. Farm numbers have stayed relatively stable in the county between 1982 and 1997, unlike more urban parts of the Sound that have seen rapid decline. About 50% of farms are less than 30 acres— these farm families often rely on non-farm income to make a livingⁱⁱ.

Quick Facts on Jefferson County

Acres of Farmland

1982: 15,525
1997: 13,091
1997 Rank: 12^{th*}

Main Crops by Sales 1997

Dairy
Cattle and calves

Market Sales

1997: \$4.3 million
1997 Rank: 11^{th*}

Number of Farms

1982: 161
1997: 144

Average Farm Size

1982: 96 acres
1997: 91 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

What Trends Affect Agriculture?

National price trends have affected large dairies and beef operations.

National trends toward lower prices for products are felt in this watershed. Dairy and beef prices are the biggest concern for farmers who are producing these products— dairy prices have been very low, and beef prices have been extremely volatile. Costs related to transportation and farm supplies are a major problem for commercial farms in the Jefferson County due to the lack of local

farm infrastructureⁱⁱⁱ. Not only are products shipped out of the area for processing— most milk is taken to Chehalis— but the closest feed and equipment suppliers are in Mt. Vernon. Travel and shipping costs add to expenses and take time away from farming activities. Second generation farmers who have paid off debt on farm equipment and buildings are generally more stable. Small farms, which make up the large majority of operations in the area, are more stable due to local marketing of products, which avoids export costs and national pricing systems.

Development pressure is relatively low.

Due to the geography of the narrow river valleys as well as the watershed's location across the Sound from major urban areas, development pressure is not currently a major concern in Jefferson County. Most land in farming is not suitable for building, though minimum 10-acre parcels could potentially be developed for limited residential use if farming were to become unviable in the region^{iv}. Development pressure seems highest in the Chimacum area.

Direct marketing remains the primary avenue for selling farm products.

Due to its relatively remote location, direct marketing has always been an important part of agricultural sales in Jefferson County. Hay and vegetables often stay local, while the largest beef and dairy operations export to other parts of the state. About 75% of farmers are estimated to participate in some form of direct marketing^v— there are some community supported agriculture operations, as well as a local farmers market. The Food Co-op in Port Townsend buys as much local produce as possible, and serves as a buyer for many local farmers.

Specialty crops are not common.

Specialty crops can be found in Jefferson County, but are rare. While many livestock operations are “grass-fed” and nearly organic, these characteristics, which have been used in other areas to boost prices, are not generally advertised. There are currently no large-scale specialty crop operations in the watershed— only small parcels.

Farms and Salmon

Existing salmon-friendly actions are common on farms.

Most farmers are supportive of salmon recovery efforts currently underway in the county. Due to the involvement of several organizations, including the Conservation District, Jefferson Land Trust, the regional salmon enhancement groups, and the non-profit Wild Olympic Salmon, education and outreach efforts about salmon recovery have been widespread. The communities in the watershed are small, and groups like the Conservation District (CD) tend to work

on small efforts in cooperative ways. The CD and farmers have been particularly successful at cooperating to remove reed canary grass that chokes waterways. The CD reports that farmers are glad to get help removing canary grass and in return, the CD is able to establish buffers along riparian areas, allowing access to maintain invasive control while improving conditions for salmon. With several projects completed, success stories seem to be leading to a higher comfort level among farmers as far as what to expect from a conservation project on their land. Several farmers are also currently involved in the CREP program, leasing land in riparian areas in fifteen-year contracts.

Farmers are concerned about future regulations.

Concerns about salmon recovery include an uncertainty about changing regulations. Farmers reportedly worry that if they install buffers, future regulations could require more to be done on their land. Farmers also seem to be concerned about programs that ask them to pay for restoration, though giving up small acreages for buffers with reasonable compensation seems within the realm of manageable activities^{vi}. Conservation easements have been implemented on a few farms, but Conservation District staff report that the real need for incentive programs is in marketing and economic development, rather than farmland preservation^{vii}.

The Future of Jefferson County Farming

A lack of local marketing abilities is a major concern for many of the commercial farms in the Chimacum area, which represent the largest agricultural land base. Though development pressure is not particularly high, many commercial farmers are reportedly struggling to remain profitable. There is local support for increasing the capacity of local livestock operations to process their own milk and meat. A slaughterhouse and milk processing plant in the area would greatly increase the likelihood of larger livestock operations to stay profitable. The Cooperative Extension and Food Co-op are two organizations that have worked toward economic viability solutions, including marketing of local products. With a strong inclination to cooperate in conservation practices, farmers in this area could greatly benefit from incentive programs that reward environmental enhancements and that improve local marketing of products.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ *ibid.*

ⁱⁱⁱ Latham, Al, Jefferson County Conservation District Manager, personal communication, February 2004.

^{iv} *ibid.*

^v *ibid.*

^{vi} *ibid.*

^{vii} *ibid.*

Agriculture in King County Watersheds

Overview

King County agriculture is clustered on the Enumclaw plateau, along the middle Green River, and in the Snoqualmie valley. The county ranks 6th in acreage and 5th in sales in among the 12 Puget Sound counties, with dairy and nursery/greenhouse operations among the largest producers. There are also many non-commercial horse farms, and organic farming is expanding in the county. The substantial development pressure in the Seattle/Bellevue suburbs has been offset to some extent by an early purchase of development rights program, but conversion remains a major issue. Conflicts between farmers and other rural/suburban landowners are also a problem. Local farmers have been active in many conservation projects on the Enumclaw plateau, often in partnership with the Mid-Sound Fisheries Enhancement Group.

Profile of Farming

In 1997, King County had 42,000 acres in farms, down from almost 60,000 in 1982. Important commercial crops in the county include dairy and nursery/greenhouse, while horse farms use a substantial acreage for recreational purposes. The Enumclaw Plateau is home to about 50 dairies, while the Snoqualmie boasts large cut flower and vegetable acreages. In the midst of a highly developed area, there remain about 2,000 acres of farmland in the Kent valley, where development rights were purchased in the 1980s. The market value of King County crops was \$93 million in 1997, and a significant number of farms sell diversified products through direct market avenues.

King County had 1700 farms in 1982. By 1997, there were only 1,100, 84% of which were less than 50 acres. Small farms are disappearing at a rapid rate, though the rate decreased significantly in the period 1992 to 1997. Average farm size has remained relatively stable over the 15-year period, increasing slightly from 35 to 38 acres.¹

Quick Facts on King County

Acres of Farmland

1982: 59,813

1997: 41,653

1997 Rank: 6th of 12*

Main Crops by Sales 1997

Dairy

Nursery and Greenhouse**

Market Sales

1997: \$93 million

1997 Rank: 5th of 12*

Number of Farms

1982: 1,719

1997: 1,091

Average Farm Size

1982: 35 acres

1997: 38 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

**This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

What Trends Affect Agriculture?

National trends affect remaining large-scale growers.

A handful of farms in the county remain on the wholesale scale. Many dairies are facing hard times due to nationally set milk prices, though recent upswings in price may bring some relief. Producers, including dairies, seeking higher profits are often incorporating new business ideas such as direct marketing and agrotourism. Recent changes in county code allowing more flexibility in production and marketing on farms will likely allow more opportunities for farms to increase profits.

Early action helped to protect agricultural land; concerns about surrounding development still exist.

Development has been rapid in King County and has affected farmland and farmers. As the county has urbanized, land prices have increased and nuisance complaints have contributed to problems for farmers. King County's early response to development pressure—the 1979 Farmland Preservation Program—allowed for purchase of development rights (PDR) program and the formation of “Agricultural Production Districts” in Snoqualmie valley, Sammamish valley, Enumclaw, and upper and lower Green River valleys. Due to the early purchase of development rights on over 12,000 acres, pockets of prime agricultural land have been protected from conversion. In these areas, economic viability and neighbor complaints threaten the continuance of farming more than loss of land base. In areas that are not designated agricultural districts, Current Use Taxation and the Public Benefit Rating System are options for farmers to decrease taxes in order to lessen the effect of rising land values. Conversion still threatens these areas.

Direct marketing offers profits to small-scale producers.

Producers are increasingly turning to direct marketing as an alternative to processing or selling wholesale. It is partially due to the disappearance of local processors and wholesale opportunities as grocery chains look for larger suppliers. Direct marketing occurs in the form of farm stands, community supported agriculture (CSA), farmers markets, and most commonly, on-farm sales. A majority of horticulturists use direct marketing for part or all of their sales.

Specialty crops are profitable and increasing in feasibility.

King County farms are generally small-scale niche farms. Organic produce is increasingly popular with consumers and growers, as represented by two organic organizations in the county- the Seattle Tilth and the Snoqualmie Valley Tilth. Value-added products like pies, salad mixes, and cider are becoming more

feasible since the county has included allowances for on-farm processing and storage in the newest regulations. Grass-fed beef is of increasing interest to consumers and is being advertised by farmers. A majority of King County farmers are involved in specialty crops of some varietyⁱⁱ.

Farms and Salmon

Salmon-friendly practices are ongoing in the watersheds.

There are several specific examples of salmon-friendly practices in King County. A well-developed relationship between area farmers and the Mid-Sound Fisheries Salmon Enhancement Group exists on the Enumclaw Plateau, where Mid-Sound has worked with many private landowners to enhance Newaukum Creekⁱⁱⁱ. Several tilth organizations promote biologically sound farming techniques in the county, including the Sno-Valley Tilth and Seattle Tilth. The county's Farmland Preservation Program has kept a substantial acreage of land in farming, thereby protecting the salmon benefits inherent in open space. Another county program, nicknamed the Fish N' Ditch program, monitors best management practices in drainage ditches to limit negative impacts on salmon using the ditches. A biogas converter has been proposed on the Enumclaw proposal, which would eliminate the chance of runoff from dairy farms.

Farmer concerns should be addressed.

County farm experts explain that many successful salmon recovery activities can be accomplished when salmon advocates and farmers cooperate, but that often, farmers are wary of salmon interests. By remaining flexible, and looking at what salmon enhancements can be made on individual farms that do not negatively affect the farm's activities, farmers often do not have problems allowing work to be done on their lands^{iv}. Some farmers reportedly feel they should not pay taxes or be responsible for maintenance on land they cannot use— this is primarily a concern about buffers. One idea that is often proposed to county staff is that buffers be bought from streamside landowners, farmers or otherwise, and put into public lands in order to protect the public interest in salmon recovery and water quality^v. This would protect the resource and help farmers by decreasing costs. Some farmers reportedly become concerned about discussion of taking land out of production^{vi}.

The Future of King County Farming

Due to early efforts to preserve farmland, there is a high likelihood that agricultural production districts will continue to be preserved in the future. The more pressing question for these areas is whether agriculture will remain an economically viable activity. Current efforts to maintain agricultural operations have been successful— local buying campaigns, direct marketing, and new, flexible marketing and processing regulations are allowing farmers more

opportunities to experiment with new business strategies. Many farms remain stable, especially those with off-farm income. Additional funding for voluntary conservation through incentive programs as well as marketing and economic development programs would greatly enhance the ability of King County farmers to build environmentally and economically sustainable operations.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Clinton, Laurie. King County Agriculture Programs, personal communication, April 2004.

ⁱⁱⁱ Reed, Brandy. King County Conservation District Manager, personal communication, April 2004.

^{iv} Clinton, Laurie.

^v *ibid.*

^{vi} *ibid.*

Agriculture in Kitsap County Watersheds

Overview

Much of the agricultural activity in Kitsap County can be characterized as non-commercial horse farming, although there are a few commercial beef and nursery operations, some major aquaculture operations, and a wide variety of small farms raising specialty crops primarily for local markets. Growth in the Poulsbo and Kingston areas has resulted in some increased pressure to convert farms to residential subdivisions. There have been many recent conservation projects co-sponsored by local farmers and the conservation district, particularly on horse farms.

Profile of Farming

About 19,000 acres were in commercial farm use in the watershed in 1997, though several thousand of these acres were in woodland associated with farmsⁱ. Nursery and aquaculture were the largest sub-sectors in terms of sales, while the largest land user and most common type of operation was the non-commercial horse farm. While many horse operations are non-commercial, a significant economy has grown around feed, supply, and boarding organizations to support recreational horse riding. Some commercial beef operations exist, and many small-scale producers grow diverse crops for local sale. In 1997, Kitsap produced \$12 million in agricultural sales.

The county had about 360 commercial farms in 1997, down from a little over 420 in 1982. The agricultural land base has increased as forestland has been converted to pasture in many areas. The same 15-year period saw an increase in farmland by about 9,000 acres, in large part woodland associated with agricultural use. Average farm size has greatly increased, but this is likely due to an increase in woodland associated with some farms, rather than an increase in the size of most farmsⁱⁱ.

Quick Facts on Kitsap County

Acres of Farmland

1982: 10,974
1997: 19,129
1997 Rank: 9^{th*}

Main Crops by Sales 1997

Nursery and Greenhouse**
Aquaculture

Market Sales

1997: \$12.2 million
1997 Rank: 8^{th*}

Number of Farms

1982: 422
1997: 359

Average Farm Size

1982: 26 acres
1997: 53 acres***

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

**This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

***Does not represent general increase in farm size, but the addition of a few 1000+-acre tracts, likely in woodland.

What Trends Affect Agriculture?

Most farms are stable due to off-farm income.

A majority of agricultural land users are involved in horse and stable operations, which are not main sources of income for most families. Most operations in the county are fairly stable due to off-farm income. Increases in feed prices have affected horse and beef operations. This trend in combination with the mad-cow disease scare has led to more beef producers looking into raising grass-fed beef, which can also fetch a higher price in the market. Increases in land prices and associated taxes have affected larger commercial farms. Nursery operations are generally profitable.

Development pressure is low, but may intensify in the future.

Development pressure is relatively low in Kitsap County. Still, there is increasing residential and urban development pressure around the centers of Poulsbo and Kingston. Approximately 115 landowners are currently enrolled in the county's Open Space Program under an agricultural exemption, which provides a substantial tax decrease for enrolled taxpayersⁱⁱⁱ. In order to develop such a parcel, the landowner is responsible for back taxes, which has slowed the rate of development of these parcels. However, back taxes do not represent a hindrance to residential developers who can afford fees because of large profits on subdivisions.

Beef producers are joining other farmers in direct market avenues.

Those agriculturalists that sell products are often using direct market avenues. Small-scale producers sell at farmers markets. Small-scale beef producers are turning to pasture-fed, custom slaughtered products which are marketed directly to neighbors and friends, while larger scale beef operations (40-50 head) ship animals to Marysville for sale at auction. Commercial nursery products are primarily marketed wholesale, though a retail store on the farm is a common additional marketing option.

Specialty crops predominate in Kitsap County.

With the exception of about a dozen large-scale beef operations, all agricultural activity in the watershed is in specialty crops. The largest operations that sell commercially are nursery and pasture-fed beef, while small-scale goat dairy, horse, and diversified vegetable operations dominate. While most producers are not certified organic, many advertise their crops as "naturally grown"^{iv}.

Farms and Salmon

There are many existing salmon-friendly practices on farms.

Part of the key to salmon restoration successes in the county is reportedly flexibility in negotiating environmental installations on private property. Successful buffer installations have occurred in partnership between private landowners and the county, which is generally amenable to negotiation in order to meet special needs of individual landowners. The Conservation District partners with agricultural landowners to provide technical assistance for installing best management practices like mud management, exclusion fencing, and pasture rotation. In a recent project on Gamble Creek, the Conservation District partnered with landowners to decrease pollution problems and restore salmon habitat.

Farmers are concerned about buffers, but willing partners in environmental enhancement.

Some landowners reportedly feel threatened by suggestions that a portion of production or pastureland be converted into buffers because of possible lost income from a decrease in production. The Conservation District offers an important intermediary role for landowners, because staff can offer advice and assistance but are not regulatory in nature. The District generally remains flexible in buffer width in order to maintain cooperative relationships with landowners, and has been successful at installing buffers around the county this way^v. While some Conservation Reserve Enhancement Program (CREP) contracts exist, due to the program's basis on endangered species protection, many Kitsap streams are ineligible because endangered species are not present. Watershed landowners would likely be interested in further cost-share programs providing compensation to landowners for conservation enhancements.

The Future of Kitsap Farming

Kitsap farmers would likely participate in more conservation practices if given the opportunity and assistance. Farms are relatively stable, and a significant acreage is in farm use, either commercial or non-commercial. The opportunity exists to provide assistance to these landowners to increase the environmental benefits on their farms, which are likely to remain in farm use as long as development is kept at bay.

Due to its limited water resources, protection of open space including farmland on the Kitsap peninsula is vital to the needs of its growing population. Increased development pressure near city centers threatens several larger tracts of land on city outskirts. Funding for purchase of development rights would help protect land but is currently not available in the county. Development patterns are starting later on the Kitsap peninsula than in urban areas across Puget Sound.

The opportunity exists to slow conversion of open space through the protection of land. Larger operations on larger tracts of land are most vulnerable, though nursery farming remains profitable, and these operations will likely continue to make money through a mix of wholesale and retail businesses.

ⁱ This figure includes 8,900 acres of pastured and non-pastured woodland on farms in 1997, an increase from 3,217 acres of woodland in 1982 (U.S. Census of Agriculture).

ⁱⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱⁱ Sampson, Scott. Kitsap County Assessor's office, personal communication, March 2004.

^{iv} Heacock, Steve. Kitsap Conservation District, personal communication, March 2004.

^v *ibid.*

Agriculture in Mason County Watersheds

Overview

Agriculture in Mason County is split between large aquaculture operations, a few large farms in the lower Skokomish, Chehalis, West Hood Canal and Oakland Bay areas, and many small farms around the county. Specialty crops, including Christmas trees and pumpkins, as well as beef cattle and sweet corn predominate. Mason County is ranked 8th of 12 Puget Sound counties in farm acreage. Beef and dairy production has been in decline, reflecting national trends toward lower prices, while aquaculture remains robust. There is little development pressure but there is a trend to subdivide large farms into smaller parcels. Local farmers were actively involved in efforts to improve water quality in the Skokomish River and delta in the 1990's.

Profile of Farming

Mason County had close to 20,000 acres in commercial farmland in 1997ⁱ. This acreage is divided among several watersheds, including the Chehalis, which does not drain into Puget Sound. The most profitable commercial farming venture in the county is shellfish, the second largest industry in the countyⁱⁱ. A handful of large farms produce pumpkins, beef, sweet corn, and Christmas trees. There are no large traditional dairy or row crop operations, though a number of small operations produce non-commercial traditional livestock and some specialty crops. Commercial agricultural sales for the county were \$13 million in 1997, with a large percentage coming from commercial shellfish sales.

Mason County had just over 200 commercial farms in 1997, up slightly from 180 in 1982. There has been a general increase in the number of small farms, while larger farms have decreased in numberⁱⁱⁱ.

Quick Facts on Mason County

Acres of Farmland

1982: 15,232
1997: 19,986
1997 Rank: 8th*

Main Crops by Sales 1997 Nursery and Greenhouse** Aquaculture

Market Sales

1997: \$13.3 million
1997 Rank: 7th*

Number of Farms

1982: 181
1997: 211

Average Farm Size

1982: 84 acres
1997: 95 acres***

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

**This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

***Does not represent general increase in farm size, but the addition of a few 1000+-acre tracts, likely in shellfish or woodland.

What Trends Affect Agriculture?

Most farms are not commercial, yet are stable due to off-farm income.

Most operations in Mason County no longer operate in national and international markets, with the exception of the shellfish and beef producers. It is likely that less than 5% of farms support families on farm income alone^{iv}. Of these operations, beef producers have been struggling because of the recent drop in beef prices due to the mad-cow disease scare as well as ever-increasing equipment and supply costs. Historic dairies in the area have closed due to unprofitable conditions. Shellfish producers on the other hand reportedly had a highly successful season in 2003 and are experiencing increases in market demand. The majority of farming activities occurs on 5-10 acre parcels with some farms in small-scale commercial markets; these operations are generally stable due to off-farm income.

Development pressure has caused large operations to subdivide.

In general, larger acreages are being divided into smaller, rural residential parcels with some non-commercial agricultural activities, including raising horses, and sometimes cows or goats. All Mason watersheds are experiencing this trend, though less intensely in the Skokomish, due to a building moratorium in the floodplain^v.

Many small-scale producers sell products by direct marketing.

Approximately 25% of farms, mostly small acreages, currently participate in direct marketing either through community supported agriculture (CSA) programs, the Shelton and Belfair farmers markets, or farm stands. Products range from cider to soap to honey— there is a huge variety of products available by direct market. One of the commercial farms has a farm store on site, but other large farms use wholesale markets. It is unclear whether direct marketing is increasing in popularity, though existing levels represent a shift from the historic wholesale beef and dairy activities^{vi}.

Specialty crops now dominate Mason production.

While historically a large dairy community, most of Mason County's farming today is based in specialty crops. Small acreages selling to the farmers market are selling organic and value-added products, as well as specialties like mushrooms, flowers, and emu. Most of the commercial farms are also selling specialty products like Christmas trees and shellfish, though in wholesale markets.

Farms and Salmon

Salmon-friendly activities are occurring on watershed farmland.

Water quality problems in the late 1990s led to partnerships between the Mason Conservation District and streamside landowners to fence livestock out of the Skokomish watershed, as well as to plant filter strips and to stabilize stream banks. Technical assistance and cost sharing is available to farmers around the county for installation of best management practices.

Farmers are concerned about buffers and flooding.

Given the small size of the majority of Mason farms, landowners are reportedly concerned about the possibility of mandatory buffers, because a large buffer could represent a large percentage of a given parcel. In the Skokomish watershed, where remaining large-scale commercial farming can be found, diking has historically been a way for farmers to protect farmland in the floodplain from floodwaters. With new floodplain regulations in place that prohibit many actions in the floodplain, these farmers are reportedly finding it hard to protect their lands from flooding; a mechanism allowing for fish-friendly flood control would be of great interest in this valley. Farmers are reportedly sensitive to laws affecting their property rights, and compensation for requirements on private land may be of interest to landowners^{vii}.

The Future of Mason County Farming

The biggest potential change in the near future for Mason County would be the possible loss of the remaining commercial farms. Partially due to limits on flood protection, some commercial farms in the floodplains are leaving the area, many bound for eastern Washington. Small farms are fairly stable because their activities are largely non-commercial or are supplemented with off-farm income. The shellfish industry will likely continue to profit as long as good water quality is maintained in the county's watersheds.

Without a solution to the flood-control issue in the Skokomish watershed, farmers in this area may continue to emigrate from the area. A solution addressing both farm and fish needs would help to slow that trend. Small farms would benefit from a compensatory program for installing fish-friendly practices on their small parcels. Small farm parcels are likely to continue to increase in number as larger farms subdivide. The transition toward small acreages will mean an increased importance in targeting small farm landowners for conservation incentives.

ⁱ This figure includes 10,404 acres of pastured and non-pastured woodland on farms in 1997, an increase from 5,637 acres of woodland in 1982 (U.S. Census of Agriculture).

ⁱⁱ Economic Development Council. Mason County Economic Profile. Source available at: <http://www.hctc.com/~masonedc/demographics.htm#Profile>.

ⁱⁱⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: Source available at: <http://www.nass.usda.gov/census/>.

^{iv} Madsen, Mike. Mason Conservation District Manager, personal communication, February 2004.

^v *ibid.*

^{vi} *ibid.*

^{vii} *ibid.*

Agriculture in Pierce County Watersheds

Overview

The majority of farming in Pierce County is in the Nisqually and Puyallup valleys, with dairies, vegetables, and poultry as the largest producers. The county ranks 5th in acreage and 6th in sales among the 12 Puget Sound counties. Pierce County has been highly affected by the conversion of farmland to non-farm uses, particularly in the Tacoma suburbs in the Puyallup basin. Dairies and vegetables have been hit hard by regional and national downturns in prices and markets. There has been strong participation by farmers in watershed salmon planning and other conservation actions in the Nisqually basin.

Profile of Farming

Most of Pierce County's 50,000 acres of farmland are located in the Nisqually and Puyallup-White watersheds. Both watersheds have large amounts of livestock, and the Puyallup valley is a major vegetable producer. About \$70 million worth of agricultural products come from Pierce County, 2/3 from livestock operations (dairy, beef, and poultry). The county was first in the state for lettuce and rhubarb production, 2nd for sweet corn, and 3rd for strawberries in 1996ⁱ. The agricultural land base is spread between the mainstem Puyallup and White valleys, and the mainstem and tributaries of the Nisqually.

In 1997, Pierce County had approximately 1,000 farms, 300 of which were above 50 acres. Farm numbers and acreage declined significantly between 1982 and 1997, with a loss of almost 500 farms and 18,000 acresⁱⁱ.

Quick Facts on Pierce County

Acres of Farmland

1982: 68,936
1997: 50,868
1997 Rank: 5th*

Main Crops by Sales 1997

Dairy
Nursery and Greenhouse**
Vegetable, melons, corn
Poultry

Market Sales

1997: \$69.8 million
1997 Rank: 6th*

Number of Farms

1982: 1,474
1997: 989

Average Farm Size

1982: 47 acres
1997: 51 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound counties

**This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

What Trends Affect Agriculture?

Commercial vegetable farms are increasingly being shut out of national markets.

National pricing systems have significantly affected Pierce County farms. Vegetable growers in the Puyallup valley have had an especially hard time. These farmers used to sell to grocery stores and local chains; now, consolidated grocery chains are not interested in their relatively small lots of produce. Grocery

chains are often locked into contracts to import large lots of from other parts of the country, leaving a smaller and smaller market for medium-sized producers in the Puyallup. Exceptions to this situation include crops like pumpkins, which are expensive to import, and are bought locally by grocers. A small percentage of farms growing organic produce and selling to specialty stores are economically stable.

Development pressure is high and increasing in intensity.

Development pressure is very high in Pierce County. Urban areas like Tacoma are expanding, and residential development is spreading through the river valleys and onto farmland. Many commercial farmers are reportedly considering selling to developers, considering the difficult time they are having in farming, and the relatively high price they can get from developers and speculators for their land. Recent re-zoning efforts to protect agricultural land have reportedly been met with frustration from some agricultural landowners who plan to sell their land when they retire and do not favor changes that may lower the value of their landⁱⁱⁱ. Some owners participate in the State's Current Use Taxation program, but others who plan to sell in the future do not, due to the back taxes they will pay when their land is converted. The county is reportedly considering leasing county-owned floodplain land to farmers for agricultural use; the county continues to buy out floodplain land in order to protect the land from development^{iv}. The most intense pressure is reportedly in the Puyallup valley near Tacoma.

Direct marketing is a small but growing strategy.

While most farms are involved in a wholesale market system, a small but growing proportion—currently around 5% of Pierce County farms—is involved in direct marketing. As national markets change, there is likely to be an increase in the number of farms direct marketing to institutions and through farm stands. There are currently a handful of successful community supported agriculture (CSA) operations in the Puyallup-White watershed, and farmers markets in Tacoma, Gig Harbor, and Puyallup. Six or eight farm stands sell berries during harvest season. Many farmers involved in direct marketing have seen some increase in profitability, and the Pierce County Farm Advisory Commission is currently recommending an increase in emphasis on direct marketing and local buying to help keep local farmers profitable. Currently, the vast majority of farmers participate in traditional wholesale markets.

Farmers are increasingly turning to specialty crops.

The history of the Puyallup valley established in daffodils continues to this day on several farms. Some farmers are experimenting with other flowers, though disease is reportedly a problem. The organic market is less well developed than in King County, likely because of a smaller market, though some producers are using organic methods. Several farm stands and on-farm sites offering specialty

products like berries, pickles, and value-added products dot the watersheds. Overall, less than 5% of farms are currently involved in specialty crops, but this number will likely continue to increase as commercial farmers look for new markets.

Salmon and Farming

Current salmon-friendly practices are positive steps.

Dairy nutrient management plans are in place on the large dairy operations along the Nisqually and White rivers. The Conservation District has proposed a \$5 property tax in order to raise money to purchase development rights and also raise money for salmon recovery projects. The Center for Sustaining Agriculture and Natural Resources, located at the Washington State University Puyallup Extension is actively researching and promoting environmentally sound farm practices and sustainable strategies for preserving farms and fish.

Farmers are concerned about buffers, drainage, and zoning changes.

Farmers are reported to be concerned about the idea of taking land out of production for riparian buffers due to extremely tight farm budgets that rely on every farmable acre to turn a profit. A County staff member also notes farmer concern about regulations affecting drainage ditches; uncertainty about whether ditch maintenance might be further regulated is worrisome to some producers^v. Many farmers are reportedly not interested in conservation easements or zoning changes to their lands that would decrease the value of their properties, because many are considering selling their land over the next decade for retirement. A few farmers are interested in purchase of development rights programs^{vi}.

The Future of Puyallup-White and Nisqually Farming

The recent and rapid conversion of a large percentage of Pierce County farms and farmland has had significant effects on remaining farms and farmers. The loss or fragmentation of historic agricultural areas has disturbed the historically contiguous farm community. Grocer consolidation and the cost of distribution of goods have left many wholesale farmers a difficult choice—risky experimentation with new crops and markets or sale of their land for development and a sure profit.

Incentive programs that help to make farmers more profitable, such as marketing of local produce, could be helpful in these watersheds. Another example provided by Conservation District staff might be the promotion of alternatives to pesticide use, which would save farmers money on inputs and increase market price while decreasing non-point source pollution from farms^{vii}. A program like King County's FarmLink might draw prospective farmers to these watersheds

where many farmers are interested in getting out of the business. Purchase of development rights programs offer a small-scale solution. The future of farming in these watersheds will likely include a smaller land base, with direct market operations and community supported agriculture on 20-acre parcels becoming a more common occurrence.

ⁱ Washington Agricultural Statistics Service. 1996. Source available at:
<http://www.nass.usda.gov/wa/counties/cnty053.htm>.

ⁱⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at:
<http://www.nass.usda.gov/census/>.

ⁱⁱⁱ Mahan, Monty. Pierce County Conservation District Manager, personal communication, February 2004.

^{iv} Brady, Brynn. Pierce County Planning Department, personal communication, April 2004.

^v *ibid.*

^{vi} Mahan, Monty.

^{vii} *ibid.*

Agriculture in San Juan County Watersheds

Overview

Agriculture in San Juan County is modest in scale, ranking 10th in acreage and 12th in market sales among the 12 Puget Sound counties. Livestock is the predominant agricultural pursuit, with beef cattle leading the segment but a significant proportion in sheep, goats, and llamas. Most small-scale farming is for local markets, and increasing costs of off-island services and supplies are a major constraint to farm profitability for the few larger producers. Although there is little urban development pressure, there is a growing trend towards conversion of farms to large-lot residential use. Due to minimal use of island streams by salmon, stream restoration on agricultural lands is not a focus for salmon restoration.

Profile of Farming

In 1997, San Juan County had about 17,000 acres in agricultural use, selling \$2.6 million in agricultural products. \$2.2 million of this is from livestock sales—beef, sheep, goats, hogs, and poultry, are all grown on the islands. The county is first in the state in the “other livestock” category, which refers non-traditional livestock such like llamas and alpacasⁱ. Some nursery crops, fruit, vegetables, and specialty crops are also grown. The remote location of these farms brings special characteristics and concerns to island farmers in dealing with issues of sustainability of a local food system, transportation and supply from the mainland, and marketing of products on- and off-island.

The county had 174 commercial farms in 1997, and has stayed relatively stable over the past 15 yearsⁱⁱ. Most farms are small— between 10 and 180 acres. Average farm size is decreasing, with an average of 97 acres in 1997ⁱⁱⁱ.

Quick Facts on San Juan County

Acres of Farmland

1982: 18,862
1997: 16,887
1997 rank: 10^{th*}

Main Crops by Sales 1997

Cattle and calves
Other Livestock

Market Sales

1997: \$2.6 million
1997 rank: 12^{th*}

Number of Farms

1982: 172
1997: 174

Average Farm Size

1982: 110 acres
1997: 97 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

What Trends Affect Agriculture?

Increasing mainland costs are affecting profitability.

Farms relying on the mainland for supplies and markets are facing increasing costs and decreasing prices. While some hay is grown on the islands, there is a significant dependence on mainland suppliers for livestock feed. Those who

market and process their products off-island also face high transportation costs. On-island market opportunities are increasing but remain small in number.

Development of large parcels for vacation homes is increasingly common.

The San Juan Islands are a prime vacation destination due in part to the sweeping views of the Sound, surrounding mountains, and rural feel. Large agricultural tracts are attractive in the vacation home market, where large parcels with single vacation homes are increasingly popular^{iv}. Several efforts by local organizations like the San Juan Preservation Trust and San Juan County Land Trust are actively seeking to take land out of the speculative market in order to preserve open space, including agricultural uses.

On-island markets promise increased profitability for struggling farms.

Most farm families have non-farm income that helps to support the costs of the farm. Some niche operations selling high quality organic produce to high end Seattle area restaurants and markets are fairly stable and profitable, though transportation costs are considerable. Efforts to improve on-island processing capabilities promise to increase profitability for a number of livestock owners in the near future, as discussed below. The Sustainable Agriculture and Rural Development Committee on Lopez Island is an important player in increasing opportunities for island farmers to sustain their way of life.

Direct marketing on and off island is a small but growing niche.

As is true in several Puget Sound areas, direct marketing is currently small, but increasing in presence in the San Juan Islands. Most of the grocery stores on the ferry service islands do not sell products produced on the islands because of contracts with mainland grocery chains. A new organic grocer has opened on Orcas Island, which is marketing local produce. Farmers markets located on Lopez, San Juan, and Orcas islands are successful and bring in significant profits to small-scale local growers. Contracts with mainland and island restaurants for specific products like goat cheese or organic fancy salad greens are popular, but are facing increasing difficulties meeting health regulations that require commercial grade processing facilities even for small producers. Community supported agriculture (CSA) and farm stands are also means of direct market on the islands. Currently, about 4% of products are sold locally, but this number is likely to grow in the near future^v.

Specialty crops continue to be an important part of farm sales.

Specialty crops are grown in large quantities on the islands. Organic vegetables and fruit, grass-fed livestock, specialty livestock such as llamas, and value-added products such as goat cheese are all examples of successful specialty products. Specialty products are often sold off-island in high paying urban markets. Value-

added products like custom cut meats, soaps, and fancy lettuce mixes are emerging as high priced alternatives to traditional crops. A new USDA-certified mobile slaughter unit offers the opportunity to process and sell custom livestock products locally for a 35-member cooperative. This reportedly has the potential to bring in an extra \$2 million a year to farm sales that will stay in the local economy^{vi}.

Farms and Salmon

Because the islands support very few salmon populations, there is little interface between farmers and salmon advocates. Upland use affecting water quality and habitat in the near shore are concerns for salmon, and runoff from residential and farm uses is an issue currently being addressed through water quality monitoring programs at the Conservation District. Protection of open space through conservation easements will help to keep development of upland areas from overtaking farmland and sensitive areas.

The Future of San Juan County Farming

Many San Juan farms are transitioning away from historic large livestock operations dependent on the mainland for marketing and supplies. Several farms still follow this model, but are facing higher costs than mainland competitors. Small farms, often with the aid of off-farm income, are reported to be successful with niche markets or selling locally. The trend towards locally grown, produced, marketed, and sold products is evident, but still in its formative stages. Many factors will affect the future of San Juan Island farming, including the conversion of farmland, ties to mainland farming, efforts of local organizations to increase opportunities for island farmers, and consumer demand for locally grown produce.

Incentive programs that encourage a local island food system could help to solve problems faced by those farms dependent on the mainland. Such programs could involve an education campaign for consumers, like the one already underway by a locally owned grocer on Orcas Island^{vii}. Another option that has recently become available is the mobile slaughter unit, which has shown marginal profits in its first two years and is expanding in its production. Conservation easements on farms would help to protect farmland, forests, and wetlands that in turn help to protect nearshore water quality and habitat for salmon. With such incentives in place, San Juan farming has the potential to become a fully functioning sustainable food system for island communities.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Sehmsdorf, Henning. San Juan Conservation District Board member, personal communication, February 2004.

ⁱⁱⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture.

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- ^{iv} Hankins, Heather. San Juan Conservation District, personal communication, February 2004.
- ^v Sehmsdorf, Henning.
- ^{vi} Dunlop, Bruce. San Juan County farmer, personal communication, February 2004.
- ^{vii} Sehmsdorf, Henning.

Agriculture in Skagit County Watersheds

Overview

Skagit County ranks 2nd in both farm acreage and sales among Puget Sound counties, with potatoes, vegetables, nursery/greenhouse crops and dairy production as the largest producers. The county boasts an extremely wide variety of crops. Potatoes have greatly expanded in acreage in recent years, while dairies, historically prominent, have decreased in number due to national and regional trends in prices and markets. The county is distant enough from urban centers to provide some insulation from development pressures, and local governments and non-governmental organizations are actively working on securing development rights to preserve farmland. Several local organizations are active in representing farmers on marketing, land use, and commodity issues. Farmers have been actively engaged in watershed salmon planning and have participated in many early conservation projects.

Profile of Farming

In 1997, Skagit County had over 93,000 acres of farmland, increasing from 1992 levels though still lower than 1982 levels. Rich soils in the floodplain produce large quantities of vegetables, vegetable seed, bulbs, berries, and potatoes, with a market value of \$171 million in 1997ⁱ. Potato production has increased significantly over the past 15 years, with 12,000 acres and \$70 million worth of production in 2001ⁱⁱ. Vegetable seed production represents a major portion of U.S. and global seed supply for several staple vegetables. The valley grows more daffodil, iris, and tulip bulb than any other U.S. county. While a handful of crops dominate the industry, Skagit is very diverse in its production, growing about 100 different crops plus livestock. Approximately 6,000 acres of farmland are irrigated over the dry summer months for berries, pasture, potatoes, tree fruits, and cucumbersⁱⁱⁱ.

Skagit County had just over 700 farms in 1997. This is a decrease from 1982 when close to 900 farms filled the valley. Skagit farms are also the largest on average in Puget Sound at 131 acres in 1997. Average farm size has increased over the 15-year period, as small farms are lost at a rapid rate^{iv}.

Quick Facts on Skagit County

Acres of Farmland

1982: 109,834
1997: 93,495
1997 Rank: 2^{nd*}

Main Crops by Sales 1997

Dairy
Nursery and Greenhouse**
Vegetables, melons, corn

Market Sales

1997: \$171.7 million
1997 Rank: 2^{nd*}

Number of Farms

1982: 897
1997: 714

Average Farm Size

1982: 122 acres
1997: 131 acres

Source: U.S. Census of
Agriculture

*Rank in 12 Puget Sound
Counties

**This category may include
flowers, seeds, foliage and
nursery products, greenhouse
products, and others.

What Trends Affect Agriculture?

Debt load and the ability to self-market influence trends in farm profitability.

Compared to many parts of Puget Sound, Skagit County farming is booming. However, many sub-sectors of the farm community have been affected financially by low national and international prices and the loss of processors in the area. Those farms that do not carry debt are often able to make changes necessary to accommodate shifting markets. Those farms that have enough flexibility to market and/or process their own products are able to avoid low market prices and the added costs of transport to distant processors. Dairies are one sector that has not been able to make these changes, and have seen large numbers of producers leaving the industry over the past two decades. Due to the difficulties of self-processing large quantities of dairy products, most in the sector rely on Darigold, the only processor left in the area, and often do not have the option of self-marketing. Potato growers on the other hand, have been highly successful at processing, bagging, labeling, and marketing their own products for wholesale, and acreage has increased since the 1990s. Berry farmers are subject to very volatile prices determined each season and influenced by overseas competition, leading some to shift crops but others to add berry acreage, netting increases in acreage in the past decade. Other producers facing low prices often diversify and/or add direct market outlets to their operations to stay profitable.

Development pressure threatens the intact agricultural communities in the Skagit watershed.

Development pressure is lower in Skagit County than in more urban areas in central Puget Sound, but continues to increase overall in the county. There is a natural hindrance to development of much of the farmland in the county, which is located in the floodplain of the Skagit River and is therefore a risky place for development. Skagit County agricultural zoning requires a minimum parcel size of 40 acres. There have been recent cases of 40-acre parcels being purchased for single large residences with a lease back to farmers for the remainder of the parcel. This has led to concern about maintaining the contiguous agricultural zones that currently contribute to the stability and support systems for local farmers. The Skagit County Farmland Legacy Program, funded by the county's Conservation Futures Program, purchases conservation easements on farmland in the county and has protected over 2,500 acres to date. Still, there is concern about development pressure, especially along the I-5 corridor.

Organization helps keep many farms stable and profitable.

The Skagit Valley is one of the most stable agricultural centers in the State. Sales, income, acreage, and production figures all point to a stable picture of

farming. A particularly important characteristic is the critical mass of farmland and farm activities, supporting agricultural suppliers, local research by the WSU extension, and organizations with a strong interest in maintaining farm viability. Farmers work together formally through Skagitians to Preserve Farmland, the Farm Bureau, the Washington State Dairy Federation, numerous commodity commissions, and the Western Washington Agricultural Association. Informally, farmers work together in field rotations, crop pricing, and marketing. One example of marketing cooperation is a group of three potato growers who have patented a local potato variety, and have become very profitable selling the new variety. An example of informal cooperation is a typical agreement between a potato farmer and a dairy farmer who “swap” fields to allow soils to recoup after a season of intensive potato production by a season in pasture. Though the sector overall has remained stable and profitable, there has been a decline in small family farms, which are not always able to make necessary and costly changes to stay in business.

Skagit farmers are increasingly supplementing wholesale marketing with direct market avenues.

While farms of all sizes and production levels can be found in the Skagit watershed, a large number of farms produce for large markets and predominantly wholesale. As wholesale markets have become more competitive, Skagit has seen an increase in direct marketing. Often, large-scale producers sell a portion of their product via direct market avenues such as farm stands and farm stores, while maintaining a significant wholesale line. This allows producers to use their quantity, while often increasing profits due to higher prices to be had in direct marketing. Many large-scale producers processing their own products, bagging potatoes for example, get a higher price for a value-added product, but still sell at a wholesale level. Small-scale producers are increasingly selling at farm stands and some at farmers markets.

Many farms are adding specialty and value-added products.

Historically, the Skagit grew large-scale commodities including oats, field corn, and green peas. Today, farms have diversified to a significant extent. Specialty crops have transformed the landscape and the market, potatoes being the primary example. Bulbs and flowers are a huge market in the valley and responsible for bringing thousands of people to visit the Tulip Festival every year. One of the largest specializations that has taken place is the introduction of processing, labeling, and marketing to large-scale operations, who are looking to add value to their products. Many producers processing their own products, bagging potatoes or refrigerating and processing berries, get a higher price for a value-added product, while maintaining wholesale markets. Overall, the county has seen large increases in acreage and value to specialty crop production over the past decade.

Farms and Salmon

Salmon-focused environmental practices are increasingly common.

Conservation District staff report that many farmers are involved in the Conservation Reserve Enhancement Program (CREP), typically leasing land that is less valuable for farm production, but well suited to native re-vegetation^v. As of November 2003, 500 acres of riparian habitat were leased under 68 CREP contracts^{vi}. Numerous programs are working to preserve farmland, including Skagitians to Preserve Farmland, the Skagit Land Trust, and the Skagit Farmland Legacy Program. Protecting farmland from development preserves environmental benefits inherent in responsible farm use, while maintaining the opportunity for habitat enhancement in the future. While not salmon related, a noteworthy environmental program is the Barley for Birds program— a partnership between the Washington Department of Fish and Wildlife, local farmers, and Ducks Unlimited— which leases land from farmers in return for production of barley to feed migrating birds. The Salmon Recovery Funding Board on Skagit farmland has funded numerous projects, five in 2003 alone. All 50 Skagit County dairies have approved dairy nutrient management plans, and many farms participate in conservation programs through the Conservation District and the Natural Resource Conservation Service.

Farmers are concerned about buffers and tide-gates.

Both salmon advocates and farmers have been actively involved in the county's Critical Areas Ordinance (CAO) update. The CAO update has been debated for several years— the county has compiled six different versions, with appeals from various groups on each version. The current version was passed at the end of 2003 and requires no habitat enhancements on existing farmlands above the “no harm or degradation” standard, though monitoring for “harm” to the watershed will begin to ensure that no adverse effects are occurring. Farmers incorporating voluntary practices are given special recognition as part of the update. The final outcome for the update is still uncertain; however, farmer and tribal interests have been present at the table, and input from both sides will hopefully lead to a workable solution in the near future.

Farmers' main concerns reportedly include mandated buffers without compensation and also the width of buffers. Most commercial farming is in the floodplain where drainage ditches are used to drain fields. Because salmon now inhabit these ditches, there has reportedly been concern about whether buffers or other enhancements could be required on ditches. A main concern is that farmers need access to these ditches in order to maintain the drainage of fields. Another concern is reportedly the use of self-regulating tide-gates. These are gates that allow fish to enter stream systems while minimizing the salt-water transfer into drainage areas. Farmers are reportedly skeptical about the efficacy

of these gates and are concerned that salt intrusion might still occur with new experimental models^{vii}.

The Future of Skagit Farming

While major changes have occurred in Skagit farming, the sector as a whole remains stable and viable. Currently, potato farmers look to be establishing themselves for the long term in the area; however, further expansion may not be possible due to the large amount of land needed to rotate crops^{viii}. Dairies are struggling, and there may be a continued loss of farms over the next few decades. The continued loss of small farms in the area is of concern. Preserving any farmland currently at risk of conversion should be a high priority in maintaining the critical mass of agriculture necessary to keep a thriving agricultural community, which also provides the opportunity for salmon restoration.

It will be important to encourage farmers' voluntary cooperation in improving conditions for salmon through incentive programs focused on agricultural areas. Several concerns that need to be addressed in any discussions of buffer creation include how to establish a buffer without adversely affecting adjoining cropland by shade, how to ensure access to drainage ditches for maintenance, how to delegate responsibility for the maintenance of buffers, and how to adequately compensate landowners for any loss of production area^{ix}. Another need is a better model for a self-regulating tide-gate or other effective means to ensure fish passage without salt-water intrusion; this would be helpful to both farmers and salmon. Preserving any farmland currently at risk of conversion should be a high priority in maintaining the critical mass of agriculture necessary to keep a thriving agricultural community.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Skagit County Cooperative Extension. 2002. 2001 Skagit County Ag Stats. Source available at: <http://skagit.wsu.edu/Agriculture/images/2001%20ag%20stats%20final.pdf>.

ⁱⁱⁱ Skagit County Cooperative Extension. 2002. 2001 Skagit County Ag Stats.

^{iv} National Agricultural Statistics Service. 1997 U.S. Census of Agriculture.

^v Schuh, John. Skagit Conservation District, personal communication, March 2004.

^{vi} State Conservation Commission. CREP Participation. Source available at: <http://crep.scc.wa.gov/Participation.shtml>

^{vii} Schuh, John.

^{viii} Havens, Dyvon. Washington State University/Skagit County Extension, personal communication, November 2003.

^{ix} Rose, Bob. Skagitonians to Preserve Farmland, personal communication, March 2004.

Agriculture in Snohomish County Watersheds

Overview

While the number of farms and farm acreage has notably declined in recent years, the county remains third among Puget Sound counties in farm acreage and fourth in market sales. In the Stillaguamish valley, traditional dairies predominate, while the Snohomish watershed has a wide variety of livestock and crops. The growth in suburban towns surrounding Everett has spread to adjoining farmland and conversion has been a serious problem. The Stillaguamish valley is more insulated from urban growth except along the I-5 corridor. The national downturn in dairy incomes has hit the county hard. Farmers in Snohomish County are among the most active in the region in watershed salmon recovery planning. There have been many innovative conservation projects on farmland in the county, including the Haskell Slough project, the development of a Lower Skykomish habitat conservation plan, and a new biogas project.

Profile of Farming

Snohomish County had 60,000 acres of farmland in 1997, producing \$112.8 million in sales. The main products by sales are dairy and nursery/greenhouse, as well as significant poultry and beef sales. About 40 dairies are currently operating in the county, with a majority in the Stillaguamish valley, which is characterized by more traditional, single-product farming models. The Snohomish watershed has a majority of smaller operations, growing vegetables, pumpkins, and flowers, and participating in agro-tourism activities.

Snohomish County had about 1,100 farms in 1997, down from 1,600 in 1982, representing a 31% loss. The loss of land base mirrors this trend, with over 32,000 acres lost during the same 15-year period. Average farm size has remained relatively stable, at 53 acres in 1997¹.

Quick Facts on Snohomish County

Acres of Farmland

1982: 92,820
1997: 60,588
1997 Rank: 3rd of 12*

Main Crops by Sales 1997

Dairy
Nursery and Greenhouse**

Market Sales

1997: \$113 million
Rank: 4th of 12*

Number of Farms

1982: 1,664
1997: 1,139

Average Farm Size

1982: 56 acres
1997: 53 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

**This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

What Trends Affect Agriculture?

Wholesale agriculture is facing a decrease in profitability.

Traditional dairy and beef operations are significantly affected by national trends of increasing costs and decreasing prices. In the 1990s, dairies in the county were very successful, but in the last 10 years, more and more dairies are reportedly closing, converting into other farm ventures, or breaking into smaller operations. This trend is more pronounced in the Snohomish watershed. There are much fewer farm closures and fallow fields to be found in the Stillaguamish Basinⁱⁱ. A few very large dairies remain profitable and continue to grow. Small-scale diversified farms offering agro-tourism activities like pumpkin patches are also fairly profitable in the Snohomish watershed. A large community of Hmong farmers producing fresh cut flowers for market in the Snoqualmie valley, extending into King County, is reportedly fairly profitable. Snohomish County has also faced a loss of commercial processors—one frozen vegetable plant remains in Stanwood.

Development pressure is significantly affecting Snohomish County.

Development pressure is felt in both watersheds. Most land that is not designated farmland has been developed. Most of the designated farmland, 55,000 acres in the county, is in the floodplains of the river valleys. The Stillaguamish is particularly affected near the I-5 corridor, where development interests have pushed for exceptions to agricultural zoning laws. The loss of farm acreage in the county over the past decade is attributable to a combination of decreasing profitability and development pressureⁱⁱⁱ. A pilot transfer of development rights program funded by the Natural Resource Conservation Service in 2003 in the Stillaguamish valley may help to protect agricultural land currently threatened by development^{iv}.

Direct marketing is an increasing mode of sale for small farms.

Direct marketing is becoming more common in the county, especially in the Snohomish watershed. The county has a number of farm stands, farmer market users, U-pick operations, and community-supported agriculture (CSA) operations^v. The Puget Sound Fresh campaign, particularly active in Snohomish and King Counties, is a recent attempt to market locally produced products to area residents. Most dairy and beef operations continue to use wholesale/processor methods of marketing. Direct marketing is currently practiced by approximately 5-10% of farms in each watershed, though this number appears to be increasing^{vi}.

More farms supplementing traditional crops with specialty products.

Specialty crops are emerging as an alternative or addition to traditional farms in Snohomish County. About 10% of farms are turning to specialty crops such as nursery and greenhouse production (including fresh cut flowers, Christmas trees, and nursery stock), organic produce, and horses. Also emerging are agro-tourism activities on farms, particularly in the Snohomish watershed. A number of large operations, often converted dairy operations, now offer pumpkin patches, hayrides, and corn mazes, as well as produce and value-added goods for on-farm sale. These farms are close enough to urban areas in King County to attract tourists to their farms. The Pumpkin Festival every fall is now a destination in the Snohomish valley, and several farmers have organized around this event with assistance from the county.

Farms and Salmon

Salmon-friendly actions are increasingly common.

Due partially to efforts by local agricultural leaders in the Skykomish valley, salmon and farm advocates are working together to solve problems. One effort is the Lower Skykomish River Habitat Conservation Group, which is a group of farm families working on a Habitat Conservation Plan (HCP) with agencies and tribes in order to protect the lower valley for agricultural and salmonid uses. In a related project, the much-publicized Haskell Slough project involved opening fish habitat while protecting farm fields from floods. Another example of a cooperative project is a partnership between the Stillaguamish Tribe and the Stillaguamish Flood Control District to install fish friendly tide-gates that prevent fields from flooding while allowing salmon to pass through. All dairies in the Stillaguamish basin have approved dairy nutrient management plans. The Snohomish Basin Biogas Partnership is working to bring a biogas converter to the county that would reduce the possibility of contaminated streams while allowing farmers the ability to expand their dairies without worrying about increases in waste.

Farmer concerns and ideas should be addressed.

Farmers' concerns include potential requirements to take land out of production without compensation. The Conservation Reserve Enhancement Program (CREP) program reportedly worries some farmers who question what happens to land after the 15-year lease period. Under county ordinances, an established riparian buffer cannot be removed, which effectively takes that land out of production for a farmer permanently, with only 15 years worth of compensation. Farm experts suggest bringing salmon advocates and farmers together in social gatherings where casual conversations can bring out shared values and establish common ground.

The Future of Stillaguamish and Snohomish Watershed Farming

The dairy industry in Snohomish County has been shrinking quickly over the past decade, due to decreasing profit margins: a combination of low milk prices and increasing costs of production. Recent upswings in price may produce some relief, but a continued loss of dairies is possible. Land is being leased to horse owners and recreational users, and is often being sold for development. Challenges to zoning laws are emerging, due to the lack of economic viability of some farmers who no longer farm this land. Agro-tourism is a growing phenomenon, especially on old dairy farms in the Snohomish valley, and public support for these operations promises a profitable future. Many farms that have diversified their operations are fairing better than traditional single-product operations. The number of farms using these methods is currently a small percentage.

Programs that may increase viability in Snohomish County include additional resources for purchasing development rights on threatened farmland, continued marketing of agro-tourism opportunities including an emphasis on environmentally-friendly practices, and conservation measures that help reduce environmental costs on traditional farms like dairy and beef operations.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Hilgenberg, Bob. Snohomish County Department of Planning and Development Services, personal communication, February 2004.

ⁱⁱⁱ *ibid.*

^{iv} Snohomish County. 2003. "Federal 'Seed Money' Will Help Snohomish County Save Stilly Farms." Source available at: <http://www.co.snohomish.wa.us/Press%20Releases/countynews.htm>.

^v Hilgenberg, Bob.

^{vi} Hackett, Mike. Washington State University/Snohomish County Extension, personal communication, February 2004.

Agriculture in Thurston County Watersheds

Overview

Thurston County is a significant agricultural producer but many of the large farms are in the Chehalis watershed, outside the Puget Sound basin. Within the Puget Sound region, the majority of farms are in the Nisqually basin where poultry and dairy operations predominate. A large number and variety of small farms can be found in the county. Growth in the suburban cities around Olympia has resulted in increased pressure to convert neighboring farmlands in the Deschutes and Nisqually basins. There has been an active purchase of development rights program on farmlands in the Nisqually basin, and local farmers have been active participants in the groundbreaking salmon recovery effort in the watershed.

Profile of Farming

In 1997, Thurston County had 56,000 acres of farmland on 832 farms, which sold over \$120 million worth of farm products. Primary products include poultry and eggs, nursery and greenhouse crops, and dairy. Poultry sales have increased by a large percentage, increasing by 250% in the period 1982 to 1997, for a total of \$44 million in 1997 on approximately 60 farms. Dairy on the other hand, has shown a decrease in farms. These figures are countywide, and a majority of commercial sales come from outside in the Puget Sound basin in the Chehalis watershed.

There were about 830 in Thurston County in 1997, down from a little over 850 in 1982. A loss of about 11,000 acres occurred over the same period. Average farm size in the region is decreasing, with an average of 68 acres in 1997¹.

What Trends Affect Agriculture?

Large-scale producers are leaving the sector for varied reasons.

There does not appear to be a pattern by farm type to the profitability of Thurston County farms. Some large-scale dairy and poultry producers are still profitable in the county, mostly found in the Nisqually and Chehalis watersheds. Generally speaking, farms that are adding to their operations with tours and on-farm

Quick Facts on Thurston County

Acres of Farmland

1982: 67,628
1997: 56,300
1997 Rank: 4th*

Main Crops by Sales 1997

Poultry and eggs
Nursery and Greenhouse**
Dairy

Market Sales

1997: \$120 million
1997 Rank: 3rd*

Number of Farms

1982: 856
1997: 832

Average Farm Size

1982: 79 acres
1997: 68 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

** This category may include flowers, seeds, foliage and nursery products, greenhouse products, and others.

produce sales are reportedly fairing slightly better than those not adding to their operationsⁱⁱ. Farmers owning their own land are also able to make adjustments and improvements more easily. Adaptability has proven an important characteristic to stay profitable. Generally speaking, small-scale commercial and non-commercial farms are increasing in number, and many large-scale commercial farms have gone out of business.

Development pressure is increasing.

Land prices are increasing in Thurston County as development spreads across the watersheds. A 2002 report by the Thurston Regional Planning Council found that between 1985 and 2002, more than 32,000 acres was converted from forest, agriculture, or other open space to urban uses. Among the WRIsAs, the Chehalis had the most conversion, followed by the Deschutes and then the Nisquallyⁱⁱⁱ. U.S. Census also data suggests a high rate of conversion, with a loss of 11,000 acres of farmland between 1982 and 1997^{iv}. The Thurston County Conservation Futures program was used in the mid-1990s to protect over 900 acres in the Nisqually valley through the purchase of development rights (PDR), and a transfer of development rights program has also been established. The Agricultural Advisory Committee has recently discussed a countywide PDR program, though no formal actions have been taken thus far^v.

More and more farmers are using direct marketing.

60% of farms are estimated to be currently involved in direct marketing^{vi}. Most operations using direct marketing are small in scale and located in the Nisqually and Chehalis watersheds. These farms often sell at the Olympia farmers market, the largest in the Puget Sound region. One organization supporting local sales of local products is the Olympia Food Co-op, selling local goods in urban Thurston County. The trend toward direct marketing is increasing.

The production of specialty crops is increasing.

About 20% of Thurston County farms are involved in the specialty crop production, and this number is increasing^{vii}. A majority of specialty crop operations are found in the Nisqually and Chehalis basins, growing organic produce, flowers, and Christmas trees. Most of the producers are small-scale, selling at the Olympia farmers market, and are reportedly marginally profitable.

Farms and Salmon

Salmon-friendly practices exist on many farms.

The Conservation District regularly works with landowners to install fencing, erosion prevention techniques, and water quality improvements that make sense for individual landowners while improving conditions for fish and wildlife. A 2001

project was recently highlighted by the EQIP program, in which a landowner, with assistance from the Conservation District and community volunteers, removed invasive species, and installed a riparian buffer and fencing to correct water quality problems on Woodland Creek^{viii}. The Conservation District recently began management of the Conservation Reserve Enhancement Program (CREP) and has initiated a few contracts. With more funding available in the program, the District predicts many more contracts would be established^{ix}.

Farmers are concerned about buffers and water rights.

County farmers' main concerns are surrounding buffers and water rights. Farmers reportedly worry that land will be taken out of production in large amounts in the watersheds. Conservation District staff suggests that flexibility in buffer widths with accommodation for those not causing harm to stream corridors might alleviate some pressure on farmers^x. Due to high land prices and the difficulty in getting water rights, existing farms cannot expand, and new farms cannot be established. The transfer of water rights away from farm use is reportedly a concern. The Agricultural Advisory Committee cautions against an open market on water rights as this could force farmers to compete with developers to buy rights^{xi}. Bringing farmers to the table in salmon recovery discussions is one way the Conservation District staff has suggested to strengthen communication and show farmers that salmon advocates recognize their concerns^{xii}.

The Future of Nisqually and Deschutes Farming

The 2001 Thurston County Agricultural Advisory Committee outlined the main concerns for the future of Thurston County farming: they were water resources and water rights, urbanization and farmland preservation, economic viability, and education and outreach in schools and to the public^{xiii}. With increasing development, costly land, and insecure water rights, many large-scale commercial operations are in danger of going out of business in the next few decades. The trend toward small-scale specialty production is increasing, and is found mostly on 5-10 acre parcels in the Nisqually and Chehalis watersheds.

Initiating a purchase of development program may help to keep some remaining farmland in agricultural use. Following the model of the Nisqually purchase of development rights in the mid 1990s could keep land in agriculture. Developing a program similar to Puget Sound Fresh or expanding the existing program to include Thurston County farmers would likely improve viability for some producers. The establishment of conservation practices on smaller scale farms, possibly through the facilitation of higher funding levels in the CREP program, may increase the salmon benefit of these small-scale acreages.

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- ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.
- ⁱⁱ Van Gorkom, Kris. Thurston County Conservation District Manager, personal communication April, 2004.
- ⁱⁱⁱ Thurston Regional Planning Council. 2002. The Rate of Urbanization and Forest Harvest in Thurston County 1985-2002. Source available at: http://www.trpc.org/resources/land_cover_change_report.pdf.
- ^{iv} National Agricultural Statistics Service. 1997 U.S. Census of Agriculture.
- ^v Hayes, Jennifer. Thurston County Development Services, personal communication, April 2004.
- ^{vi} Van Gorkom, Kris.
- ^{vii} *ibid.*
- ^{viii} EQIP Conservation Success Stories. 2001. Source available at: ftp://ftp-fc.sc.egov.usda.gov/WA/news/archived_successes_pdfs/salmon_habitat_enhanced_in_thurston_county_eqip.pdf.
- ^{ix} Van Gorkom, Kris.
- ^x *ibid.*
- ^{xi} Thurston County 2001 Agricultural Advisory Committee. 2001 Agriculture Viability Report. *Note: this report is based on the entire county, which includes watersheds outside the Puget Sound basin.*
- ^{xii} Van Gorkom, Kris.
- ^{xiii} Thurston County 2001 Agricultural Advisory Committee. 2001 Agriculture Viability Report.

Agriculture in Whatcom County Watersheds

Overview

Whatcom County ranks 1st in agricultural acreage and sales among counties in the region, and is a top national producer of berries and important regional dairy and beef cattle producer. There are also an unusually wide variety of other crops grown in the county. There have been significant declines in the number and acreage of farms in the county in recent years, but remaining farmers are well organized to address market fluctuations. The county faces little development pressure beyond the Bellingham suburbs but is expected to face greater conversion risks in the future with growth in the region. Farmers have been active participants in recent salmon, water quality, and irrigation management planning and have co-sponsored a number of conservation projects in the watershed.

Profile of Farming

Whatcom County had approximately 100,000 acres of farmland in 1997. Main products include dairy, berries, seed potatoes, and nursery and greenhouse crops. The Nooksack basin is the highest yielding watershed in Puget Sound in terms of agricultural products sold, with \$242 million sold in 1997. The county is ranked 1st in the state and 10th in the nation in dairy sales, selling \$165 million worth of dairy products produced on approximately 200 dairy farmsⁱ. The climate is ideal for milk production, though rainfall contributes to difficult waste management issues. Another major crop is red raspberries, sold predominately for processing but also in the fresh market. The maritime climate and sandy loamy soils found in the watershed make it the ideal place for long-term raspberry production. Over 80 crops are grown commercially in the watershedⁱⁱ. Water supply is an important need for berry growers during the dry summer months.

The Nooksack Basin had about commercial 1,200 farms in 1997, down from a little over 1,600 in 1982. Close to 25,000 acres was lost during the same 15-year period. Average farm size in the region is increasing, with an average of 84 acres in 1997ⁱⁱⁱ.

Quick Facts on Whatcom County

Acres of Farmland

1982: 128,371
1997: 103,600
1997 Rank: 1^{st*}

Main Crops by Sales

Dairy
Berries
Cattle and calves

Market Sales

1997: \$242 million
1997 Rank: 1^{st*}

Number of Farms

1982: 1,618
1997: 1,228

Average Farm Size

1982: 79 acres
1997: 84 acres

Source: U.S. Census of Agriculture

*Rank in 12 Puget Sound Counties

What Trends Affect Agriculture?

Farmers are beginning to make changes due to profitability issues.

Due to the large number of commercial wholesale operations in the Nooksack Basin, global commodity prices are potential problems for these farmers. Producers of certain crops like apples and berries are particularly vulnerable to global price reductions because overseas production costs tend to out-compete local costs. The Lynden Darigold plant produces powdered milk and faces global competition for this market as well. Improvements in technology can keep some large-scale producers ahead of the curve by increasing efficiency as long as farmers have equity to pay for improvements. Some producers are beginning to explore alternatives to traditional markets due to profitability issues. While some crops are no longer profitable in the region, new markets emerge that farmers can take advantage of. The area has gone through changes in crop focus over time, and the global market is continually shifting. Off-farm income and debt control also help keep many farm families financially stable.

Development pressure has begun to affect the area.

While much of Whatcom County maintains a rural character, development pressure is becoming more of a threat. A 19% decrease in farmland between 1982 and 1997 has spurred many efforts to protect farmland. Whatcom County's agriculturally zoned land has a 40-acre minimum with development restrictions on approximately 80,000 acres of farmland. Efforts are being made by the county to purchase development rights (PDR) in areas between expanding suburban centers and agricultural communities. The county's PDR program is a new program that has received some interest from landowners but has not had measurable success to date^{iv}.

Many farms remain stable and profitable.

Due to an intact agricultural community and land base, Nooksack Basin farming is fairly stable and profitable. There are many active organizations working to keep farming in the valley including the Whatcom County Agricultural Preservation Committee and the county's Agricultural Advisory Committee. Another stabilizing characteristic is farmer organization, clearly evident in the dairy cooperative, Darigold. Many Nooksack dairies are involved in this 760-member farmer cooperative which markets and processes dairy products from Washington, Oregon, and Idaho. The Lynden plant is the largest producer of powdered milk in the country, processing 4 million pounds a day^v. Numerous informal agreements among farmers also contribute to a sense of community and shared interest. With farmer organization and local infrastructure to support producers, farmers have social and economic systems to carry them through times of low prices or changing market circumstances. While the focus of production continually changes—for example, the recent decrease in vegetable

production, but increase in berry production— farmer are reportedly generally well equipped to weather such changes. Development pressure and pricing systems are affecting farmers in significant ways, but have not threatened the stability of the farming center. With a critical mass of land, agriculture in the watershed supports numerous secondary industries including suppliers and processors.

Mostly small-scale producers use direct marketing.

Most farms in the Nooksack are large in scale and profitable selling wholesale. Only a small percentage of farms currently direct market their products. While small farms use U-pick, farmers markets, and community supported agriculture (CSA), some large farms are beginning to sell portions of their products at farm stands or stores in addition to wholesale selling. Many farms now use a variety of marketing avenues to sell products. A recent marketing effort called “Whatcom Fresh-Local by Choice” began in 2001 to urge local retailers to carry locally produced crops.

Specialty crops have been an increasing part of production.

Berry production, particularly red raspberries, is a quickly expanding specialty crop sold in global markets. In 1985, the county produced about 7 million pounds of red raspberries. By 2001, the county was producing over 51 million pounds annually on about 7,000 acres, the first in production in the nation. While this crop may be leveling off in production, blueberry production is predicted to show a similar increase in the near future^{vi}. Nursery and greenhouse production is another rapidly growing sector of agriculture, with over 100% growth from 1982 to 1997 in sales (\$10 million in 1997)^{vii}. While some farmers turning to specialty crops have been extremely successful, many others have faced difficulties. Several producers experimenting in organic produce have reportedly had trouble staying profitable due to a lack of resources, training, experience, and bankruptcy of processors contracting for production^{viii}.

Farms and Salmon

Salmon-friendly actions are increasingly common.

Over 1,100 acres are currently enrolled in the Conservation Reserve Enhancement Program (CREP), through over 100 contracts. All dairy farms in the county have approved dairy nutrient management plans to protect water quality in streams. The Tenmile project is a citizen-led restoration effort with involvement from numerous private landowners with financial and technical assistance from agencies. This effort was approved as an early action item in the watershed management plan and involves one-on-one landowner discussions, recruitment of farmers to grow riparian nursery stock, and surveys of farmland for potential future restoration, all initiated by a single citizen in the

watershed. The development of a pilot Comprehensive Irrigation District Management Plan is underway in order to make water supply and quality more predictable for both farmers and fish.

Farmer concerns need to be addressed.

Farm advocates hope that salmon groups will look at agricultural land use as a better alternative for fish than other land uses that increase impervious surface near streams. A desired role for salmon advocates is to help set realistic and achievable performance goals for salmon habitat and returns in the agricultural streams, according to Agriculture Preservation Committee staff^x. Farmers reportedly become concerned when asked to consider the possibility of returning their land to pre-agricultural states. On the other hand, they embrace the opportunity to use local knowledge and creative solutions that allow farming and salmon to co-exist^x. One farm expert notes that actions of particular concern are instream flow levels and water quality standards set at levels that are too high for farmers to meet without significant losses of production and income^{xi}. There is also concern that regulatory agencies are not aware of the on-the-ground consequences of decisions in the day-to-day workings of farms, and the different needs of individual landowners. Farmers also would be interested in recognition of their stewardship of land that not only brings benefit to themselves, but to the greater community.

The Future of Nooksack Farming

Commercial farming in the Nooksack Basin is stable and mostly profitable. However, the region is grappling with the difficult problems of development pressure and global competition. While 100,000 acres are still in farming, and zoning protects large parcels, Whatcom County has still experienced high rates of acreage loss. While many farms remain in commodity production, profit margins are getting slimmer and many operators are watching those experimenting in new markets, keeping an eye out for the next wave that might take them out of markets with nationally and internationally set prices.

Increased communication between salmon and farm advocates will undoubtedly lead to further cooperation to protect both of these important resources in the Nooksack Basin. Increased recognition by the public of the services farmers provide to the community and the environment would increase farmer incentives to stay in the business and protect their land. Financial incentives would show farmers that their stewardship is appreciated.

The Nooksack Basin farm community is highly organized and pro-actively seeking ways to protect farmland and market its products. With an intact land base and economic and social support for farmers working in a dynamic marketplace, many farms are enjoying success. With coordination among

salmon and farm interests, and with help from incentive programs, there is a bright future for farming and salmon in the basin.

ⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture. Source available at: <http://www.nass.usda.gov/census/>.

ⁱⁱ Whatcom Conservation District. 2002. Whatcom County Map and Farm Guide. Source available at: http://www.whatcomcd.org/Education/farm_map.pdf.

ⁱⁱⁱ National Agricultural Statistics Service. 1997 U.S. Census of Agriculture.

^{iv} MacConnell, Craig. Washington State University/Whatcom County Extension, Chair, personal communication, February 2004.

^v Business Pulse. 2002. "Whatcom dairy farms among most productive." Source available at: <http://www.businesspulse.com/businesspulse/bp2002/june/0602bpdairy.html>.

^{vi} MacConnell, Craig.

^{vii} National Agricultural Statistics Service. 1997 U.S. Census of Agriculture.

^{viii} MacConnell, Craig.

^{ix} Bierlink, Henry. Whatcom County Agriculture Preservation Committee, personal communication, February 2004.

^x MacConnell, Craig.

^{xi} Bierlink, Henry.