Task 2 – Pierce County Agriculture – Quantitative/Qualitative Assessment

Task 3 – Strengths-Weaknesses-Opportunities-Threats (SWOT) Analysis

Task 4 – Agriculture Industry Trends

Task 5 – Policies and Regulations Impacting Competitiveness

Task 6 – Entry Barriers for Farmers

Task 7 – Case Studies of Peer Communities

Task 8 – Benchmarks to Measure the Agriculture Sector’s Viability

Summary of Stakeholder Interviews

Farm Community Survey – Summary Report
December 28, 2005 (Revised)

To: Rob Allen, Pierce County Economic Development Division

From: Bruce Prenguber, Globalwise, Inc.

Subject: Pierce County Agriculture Strategic Plan:
Task 2: Quantitative / Qualitative Assessment

A key element of this strategic planning project is conducting an assessment of key quantitative and qualitative characteristics of local agriculture. This memorandum presents a summary of the results. The assessment was conducted by Globalwise, Inc. and includes: a review of available data and literature; supplemental data and insights obtained through direct contact with farmers, processors and other representatives of the agriculture sector; and a technical analysis of economic and other quantitative characteristics.

DESCRIPTION OF PIERCE COUNTY AGRICULTURE

Pierce County has a long history as a diverse and vibrant farming area. A 1956 account of the valley land and its capability for agricultural production states it very well:

“For an agricultural standpoint the most important topographic feature is the valley flood plain more recently formed by the erosion of the Puyallup River and the Stuck River, a branch. The Puyallup River cut a wide trench across the glacial plains in its course from the Cascades to Puget Sound. Periodic river flooding and meandering deposited a winding plain of fine silty and sandy soils. The bottomlands contrast with the less fertile, coarse, unassorted gravels on the low uplands and moraines flanking the river valley floor. Drainage ditching and river diking have brought most of the river bottom under cultivation. Called the lower Puyallup Valley, this rich soil area extends from Orting to Commencement Bay at Tacoma, a valley bottom two to three miles wide and nearly twenty miles long.”

Much of the focus on agricultural activity in Pierce County today is centered on the Puyallup Valley. Yet, we have found that agriculture is present in significant ways in other parts of Pierce County as well. There is still remarkable diversity and activity in agriculture. Over the past quarter century, the size of most operations and the number of operators has clearly been decreasing, but many people continue to derive at least part of their livelihood from agriculture. Farmers, nursery operators and others who were interviewed for this analysis say that the soils, together with the climate and availability of irrigation water, still allow for very productive agricultural enterprises. Furthermore, when these natural assets are

combined with grower know-how, Pierce County continues the long tradition of producing very high quality food and plant crops on the available land base.

Pierce County agriculture consists of a wide range of growers which include vegetable producers, dairies, beef and other livestock producers, horse farms, specialty fruit growers with such crops as raspberries and rhubarb, open field ornamental plant nurseries, greenhouse operators, flower and bulb growers, Christmas tree growers, and more.

Definition of Commercial Agriculture

Consideration of what defines commercial farmers/growers is at the heart of describing local agriculture. The amount of land owned or leased by a grower is not a useful qualifier because some intensive growing operations, such as greenhouses, can generate very large income on as little as one acre or less. Part-time farmers have always been an important part of Pierce County agriculture and the percentage of time spent farming or the proportion of income earned from farming does not define commercial operators. It is common that farmers/growers in Pierce County (and across the U.S.) also work off the farm to supplement their income. For purposes of this study commercial producers will be defined as those with gross annual farm incomes of at least $20,000.

Geographic Distribution of Commercial Agriculture

Much of the production of vegetables, berry fruits, nursery plants and other crops remains in the Puyallup Valley. In addition there are significant numbers of growers with crop and livestock enterprises in the Key Peninsula area, as well as in upland areas such as near Buckley, Eatonville, Graham and Roy. Throughout the county, remaining agricultural production is frequently side-by-side with residential and commercial land uses. The most intense mix of agriculture and development is taking place in the Puyallup Valley where there is steady conversion of open land to development uses.

The loss of farmland is a national phenomenon, and Washington is not exempt. American Farmland Trust has analyzed National Resources Inventory data collected by the U.S. Department of Agriculture and reports that Washington lost 35,200 acres of prime farmland between 1987 and 1992, and an additional 45,800 acres from 1992 to 1997. (More recent data has not been compiled.)

In Pierce County, it is acknowledged by all industry observers that the amount of land devoted to agricultural production is declining. Farmland, especially parcels with highly productive soils in the Puyallup Valley, is being converted for developed uses. Upland pasture land is also being converted. Yet no scientific data has been maintained that consistently defines agricultural land, let alone calculate the rate it has been converted to other uses.

Demand for developable land is accelerating and this is rapidly increasing the market price of “bare” land. Population growth also creates demand for more public services such as highways, sewer lines and other utilities. These services are often funded at least in part by current land owners. Even if farmers do not wish to sell at the high land prices (which some clearly want to do), higher taxes are cited as a reason that some farmers sell because they cannot generate enough net income from farming after paying their rising assessments.

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2 To our knowledge, no current, precise count of the number of commercial agricultural enterprises in the County is maintained by any source.
3 American Farmland Trust, Farming on the Edge, as reported at www.farmland.org/farmingontheedge. Don Stuart, Director of the Northwest Regional Office of AFT and Ed Thompson from AFT in California provided assistance in interpreting the agriculture land loss data.
AGRICULTURAL PRODUCERS

The U.S. Census of Agriculture is the commonly quoted source of data used to describe county level farm production. The total farm count of the Ag Census is not particularly helpful when zeroing in on commercial agriculture because it includes any farm reporting unit with sales of at least $1,000. The 2002 Ag Census reported 1,474 farms located in Pierce County, 515 of which had “cropland used only for pasture or grazing”. Also included are 527 farms of one to nine acres. These include small tracts which are very intensively managed, though not particularly productive on a commercial scale. It is apparent through examination of other data that the Ag Census counts many more farms than can be considered commercial operations. The 2002 Ag Census reports 208 farms with annual sales greater than $20,000 – a number that is more in line with estimates of commercial farms based on other sources. The Ag Census includes a wide diversity of enterprises under the term “farms”. Most notably in Pierce County, this includes what some observers refer to as the green industry (principally open field ornamental plant nurseries, greenhouse plant propagators and flower/bulb growers) as well as “food” agricultural enterprises which are traditionally considered to be farms. Our analysis shows that the green industry is very significant in Pierce County and accounts for a large share of the “farms”.

We have estimated the likely range of agricultural producers by reviewing several available data sources and by interviewing knowledgeable Pierce County residents who have specialized expertise. One reference point is the Pierce County Economic Profile and Strategic Assessment which shows 61 Pierce County employer units for crop production and 38 employer units for livestock production as of the first quarter of 2003.4

Pierce County data on current use assessment and taxation for agriculture offers another source of information. To qualify for this tax-reduction program, participating property owners must produce evidence that they have agricultural sales. Rules allow farm operations, regardless of parcel size, to qualify for this tax status. Parcels which are one to five acres must be devoted primarily to agricultural uses and have produced a gross income of $1,500 per acre for three of the five years preceding the date of application for current use assessment. Records from the Pierce County Assessors Office show that as of January 1, 2004 there were 1,439 completed agreements or approved applications for this tax deferral status, covering 28,942 acres. In addition, there were 35 agricultural parcels not enrolled in the current use tax program as of January 1, 2004. (Note: one property owner can have more than one agreement on separate parcels.)

Based on a review of listings of businesses in Pierce County and from discussions with Pierce County Extension, local farmers/growers and others, the best estimate is that there are approximately 75 commercial food producers in the county. There are also approximately 30-40 nurseries. We have not estimated the number of livestock producers, as there is no reliable data.

Discussion of agricultural production often emphasizes food crops and livestock for human consumption. These important sectors do not encompass all of Pierce agriculture. Another important sector includes ornamental nursery crops, Christmas tree production and floriculture. In fact, many non-food agricultural enterprises are relatively profitable and growth oriented sectors in the County. (For purposes of this analysis, we have not included commercial forestry.)

Based on research conducted in cooperation with the Pierce County Extension Service, agriculture operations can be categorized and estimated as shown in Table 1. Production units are defined as a separate ownership entity.

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### Table 1 – Categories of Commercial Agricultural Production Units in Pierce County: 2005

<table>
<thead>
<tr>
<th>Enterprise Type</th>
<th>Estimated Range (Number of Production Units)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Berries (Principally Raspberries)</td>
<td>5 to 12</td>
</tr>
<tr>
<td>Vegetable (Fresh Produce)</td>
<td>8 to 10</td>
</tr>
<tr>
<td>Wholesale Nursery/Greenhouse &amp; Retail Nursery</td>
<td>30 to 40</td>
</tr>
<tr>
<td>Christmas Tree</td>
<td>10 to 15</td>
</tr>
<tr>
<td>Floriculture (Flowers and Bulbs)</td>
<td>3 to 5</td>
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<tr>
<td>Rhubarb</td>
<td>15 to 20</td>
</tr>
<tr>
<td>Poultry</td>
<td>5 to 10</td>
</tr>
<tr>
<td>Milking (Cow) Dairies</td>
<td>5 to 6</td>
</tr>
<tr>
<td>Beef</td>
<td>NA ¹</td>
</tr>
<tr>
<td>Horse</td>
<td>7 to 15</td>
</tr>
<tr>
<td>Turf</td>
<td>1 to 3</td>
</tr>
</tbody>
</table>

¹ The number of commercial beef operations could not be accurately determined.

Source: Globalwise Inc, and Barney & Worth with assistance from Pierce County Extension.

Together, the climate and soils of Pierce County enable local producers to grow a diverse mix of food and plant crops. Additionally, dairies were a mainstay sector in years past. Urban growth and expansion of large-scale production enterprises have changed the face of local agriculture. Many of the county’s largest fresh vegetable growers have sold their land and exited agriculture, relocated to other regions, or they are managing shrinking farm enterprises on farmland they still own (or lease) while they also sell off portions of their land base for development.

Available data and comments from stakeholders signal a trend away from large-scale commercial agriculture and toward down-scaled existing operations and new small farm enterprises. Several of the remaining large scale farmers we spoke with have voiced their desire to sell their land holdings. Looking into the future, this trend will likely continue.

Following is a brief recap of conditions in some of the major crop and livestock categories. This description is based on interviews with local agriculture community representatives and other sources.

- **Fresh Vegetables:** Farms produce a wide range of vegetable crops, including lettuce of many types, celery, carrots, corn, cabbage, pumpkins, squash, broccoli, cauliflower, green beans, and more. These crops are grown in the Puyallup Valley where the soils are deep and fertile and the terrain is flat. At least two growers with 20 to 100 or more acres in the last five years have left vegetable farming, and others are thought to be scaling back or also going out of business as their
large tracts of land have attracted lucrative purchase offers from developers. The costs of property taxes and local improvement taxing districts (LIDs) for urban improvements such as roads, have reportedly also contributed to the departure of vegetable farmers. One agricultural lender predicts no major vegetable growers will be left in five years if current trends in the Puyallup Valley land market prevail.

- **Berries:** The well-drained Puyallup Valley soils and favorable climate once allowed this area to be the largest red raspberry production area in Washington. Until the 1950s, there were hundreds of berry growers, many being part-time producers who had small fields and sent their harvest to local canneries and freezing plants. In addition to red raspberries, the valley growers have also traditionally produced blueberries, blackberries and strawberries in fields dotting the valley areas of Pierce County. Strawberries were also grown on some upland sites. With the notable exception of about seven to ten growers, the berry producers have left Pierce County. The conditions facing the berry growers are similar to the issues for vegetable producers. According to data from the Washington Raspberry Commission, there were 11 growers in the central Puget Sound region (principally Pierce County) in 2004. Their total production was 650,000 pounds, or 1.2 percent of the total state production. The remaining berry growers in Pierce County have already established marketing programs to sell either fresh or processed fruit directly to consumers through farmers markets, fruit stands, or by other innovative means such as air shipment of fresh berries to customers in major metropolitan areas throughout the U.S. Despite these measures some of the remaining producers state that they are still not profitable. Fresh and frozen fruit produced in the U.S. (Oregon and other states have more processing capacity and less urban pressure) as well as imports from British Columbia, Chile and other countries have added financial pressure and accelerated the decision of some to leave this sector.

- **Rhubarb:** These growers principally produce rhubarb for processing, with a small amount sold seasonally as fresh product. Low priced frozen imported products and the ongoing urban development pressures also affect long term viability of rhubarb production. The Washington Rhubarb Growers Association which is a cooperative of growers in Pierce County has fallen to 14 members, from a membership of about 50 a decade ago.

- **Dairies:** The number of commercial cow dairies (farm milking operations) has steadily decreased to five or six in the County. (We have not obtained reliable information to determine the extent of local goat milking operations.) There are two commercial dairy processing plants in Pierce County according to the Washington State Department of Agriculture. The larger of these purchases virtually all of its milk from outside the county. A major reason for the reduction in dairies is the high cost to comply with environmental regulations related to manure waste management and water quality maintenance in western Washington’s wet climate. Dairy production has become more attractive in eastern Washington, eastern Oregon and Idaho, where land is much less costly and the dairies are closer to the major feed sources. Large scale dairies of 1,000 cows and more in these drier climates are also replacing the smaller operations such as those traditionally found in western Washington. Another drawback in Pierce County is the incompatibility of dairies with ever closer suburban neighbors. The large tracts of land held by dairy farmers are also an attractive source of land for residential and commercial development.

- **Beef & Hogs:** Cattle are raised in large numbers in Pierce County. However most cattle production is in very small herds owned by non-commercial rural residents. The National Agricultural Statistics Service reports that in 2004 Pierce County had 16,500 head of beef cattle and calves. The beef count was 23,500 head in 2000 but dropped sharply to 16,500 in 2001 and has apparently been flat since that time. A recent analysis of livestock enterprises conducted for the Pierce County Conservation District estimated that about 485 head of cattle are on commercial agricultural enterprises. There are no estimates of the number of commercial cattle...
operations in Pierce County. The Conservation District report also has the estimate of about 70 head of commercially produced hogs. There are three stationery slaughter facilities which process beef, hogs and other livestock. Also, two mobile slaughter operators were identified in the County, with one to three more mentioned by butcher shops as part-time operators. There are also a number of butcher shops which cut and wrap meat.

- **Poultry (chicken and egg producers):** There is one very large egg producer in Pierce County. Otherwise, there are a modest number of small enterprise egg producers who typically have laying hens as one aspect of a highly diversified small farm enterprise. There are two to three producers of broiler chickens in Pierce County which are contract producers, with small diversified poultry producers also contributing production. One chicken slaughter facility was identified in Pierce County.

- **Christmas Tree Farms:** Pierce County has approximately 10 to 15 large-scale, commercial Christmas tree farms, with most of these offering “choose and cut” tree sales to local residents. This count includes two wholesale tree farms where Christmas trees are harvested and shipped in bulk to retailers and others who sell locally and out-of-state to final customers. Northwest Christmas tree industry leaders cite estimates that the U.S. has twice the number of Christmas trees in the ground as are needed based on current demand. Across the U.S., tree growers are contributing to a marketing fund in an attempt to increase sales. The future of this industry sector for all but the largest growers probably lies on greater emphasis of selling to local (Puget Sound) buyers.

- **Plant Nurseries and Greenhouses:** Ironically, the rapid growth in residential development has been a major boost to one segment of agriculture: nurseries that supply ornamental shrubs, trees and specialty plants to landscape homes and commercial buildings. There is a wide diversity of types of operations in this sector. For example, there are wholesale growers who sell to others before the plants reach the final consumer/buyer. Wholesale growers may use one or more of several growing techniques: a) open field production which generally includes the production of “ball and burlap” trees (conifer and deciduous), bare root deciduous trees and ornamental shrubs; b) container production also occurs in plastic containers that sit above ground in open fields, as well as in greenhouses; and c) tissue culture production which is mainly done in greenhouses. A second class of grower is an intermediate wholesaler, who typically buys small plants and grows them to a further stage for re-sale. Finally there are retailers who sell to the final customer; but many retailers also have some type of growing operations as well. Twenty nurseries in Pierce County are listed in the directories of the Washington Specialty Nursery Association and the Washington State Nursery and Landscape Association. This may significantly understate the true number of open field and green house growers in Pierce County. This sector appears to be very viable and growing in relation to commercial food production in Pierce County.

- **Flower Bulbs and Cut Flowers:** There are two remaining bulb growers in Pierce County, the result of a slow but steady declining trend. These growers are facing mounting competition from imported supply and from producers located elsewhere in the Northwest. A number of cut flower growers operate in Pierce County, but data is limited.

- **Horse Farms:** Commercial equine enterprises generally include breeding, stables and/or training operations which involve a significant number of horses. For purposes of this analysis, five

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5 Livestock Influenced Water Quality Issues, for Pierce County Conservation District, September 12, 2005 prepared by Keith Underwood.
6 See “News from National”, pages 6-7 in Outlook, Fall 2004 (published by the Pacific Northwest Christmas Tree Association).
horses or more are considered to be commercial agriculture. These enterprises exist in many parts of Pierce County, typically in the less densely populated upland areas such as Graham.

- **Turf:** There are two or three turf farms in Pierce County, with one firm now operating only an administrative office and a yard for turf orders to be picked up by landscape contractors and homeowners. This company previously grew turf in Pierce County, but the land was sold for development several years ago.

- **Other:** A small number of other uncategorized types of agricultural enterprises exist in Pierce County. These include: sheep herd dog training and sheep production for wool. Also there are several farms that count on agriculture entertainment / tourism (corn maze, etc.), to contribute to their income stream. There are three stationary meat slaughter operations in the County which all receive livestock grown in the County for processing. There are also three to five mobile slaughter operators.

### Organic Producers

Data from the Washington State Department of Agriculture (WSDA) shows that Pierce County currently has six private sector agricultural producers that are certified under the State’s organic certification program. A seventh certified producer is the Washington State University Research Center in Puyallup. The six private producers include: three diversified vegetable and fruit growers, two blueberry growers, and one livestock producer. Other producers may be certified by third party certification organizations other than WSDA, such as Oregon Tilth, or they may follow organic and sustainable production techniques but not wish to comply with the specific requirements of the National Organic Program, and are therefore not identified in available data sets.

### Community Supported Agriculture

Across the U.S., the community supported agriculture (CSA) movement has emerged as a means for consumers to have a direct connection with the farmer who grows their food. CSA involves consumers subscribing to a share of a farm’s produce. Typically, consumers pay for their share in the spring which gives the farmer the needed funds to purchase seed and other inputs to plant and care for the crops from planting through harvest. Consumers then regularly receive a box of fresh produce throughout the growing season. CSAs have expanded rapidly in the last ten years, with more than 1,000 now operating in the U.S. Each CSA farm may have dozens or even hundreds of shareholders.

In Pierce County, most CSA farms are in their developmental phase. According to CSA farmers themselves, there are from three to five CSA farms in the County which produce a diverse set of crops for their subscribers. CSA operations typically utilize from 3 to 20 acres in Pierce County and generally produce organic fresh vegetables and fruits. In total, there are fewer than 100 acres of land in CSA farms in the County, with a customer base estimated to be between 600 to 800 families. Some farms also serve more than their CSA customers. At least two Pierce County CSAs are also active vendors at local farmer markets and one also sells its fresh foods to a local restaurant. There appears to be considerable room for growth in the CSA sector, particularly given the large surrounding urban market and increasing demand for “fresh food” and growing importance of “food safety”. CSAs are also well-suited to operate on fewer acres, and as described in Task 4, smaller farm sizes are clearly the trend in Pierce County.

### Non–Commercial Farms, Livestock Producers & Horticulturalists

Many Pierce County residents are avid growers of agricultural crops, livestock and horticultural crops – but generate very little income from these endeavors. Examples of non-commercial farms include:
vegetable and fruit gardeners who grow principally for themselves; and rural residents with acreage where they maintain a few cattle, goats, sheep or horses (used primarily for personal food consumption or for the enjoyment of family and friends such as horses for riding). This element of agriculture is not analyzed here because the typical motivation is personal satisfaction or personal needs, and these small-scale producers are generally non-commercial operations. Although non-commercial producers aren’t analyzed for this study, it should be noted that from among the very small producers may come future commercial producers. These non-commercial producers often make a needed contribution to family income and are important to Pierce County.

**FOOD PROCESSORS**

Pierce County has a declining number of food processors. However, of those that remain, several have operated for many years in Pierce County. Twenty commercial food processors have been identified in the County. These processors range in size from very large to quite small in terms of sales and employment. They also are quite diversified in the types of products processed. Among the group are: four meat processors; two ethnic food processors; two confectionary product manufacturers; two fruit processors; two milk bottlers (one which also produces eggs); one seasonings manufacturer; one prepared foods processor; one seafood processor; one pasta manufacturer; one vinegar processor; one specialty meat and vegetable coatings processor; and one honey processor. Six processors in this group are vertically integrated: they grow and process a portion of their crops/livestock into value added processed products.

The local processors were contacted to determine if they buy local products as ingredients. Of the twenty processors identified, nine use local food grown in Pierce County in their production process. Of those who do not use local products, the primary reason is that what they need is not produced in the County: e.g., durum wheat for pasta, garlic powder for blended spices, or potato starch for vegetable coatings. In other cases, processors buy semi-processed ingredients made from crops produced in Pierce County, but must supplement that product with ingredients processed outside Pierce County. For example, a processor may use brined cucumbers (pickles) in their product formulations. However, fresh cucumbers are the only available form of that product currently available from local growers. Another reason that local sources are not used is that processors may be sourcing several types of products from one current supplier, such as three types of frozen fruits, while the local sources may not supply enough volume or the same wide range of crops / products that the existing supplier provides to the processor.

One of the last remaining processors to use local crops is the Washington Rhubarb Growers Association. This is a cooperative of growers that owns freezing facilities in Sumner. The rhubarb growers have owned their own processing plant since the late 1920s. In addition to freezing a member’s rhubarb, the plant also freezes pumpkin products and packs and ships small decorative painted pumpkins.

There are also a few small food processing operations located in Pierce County. These include beef and pork processing, honey production and berry fruit product processing. Interviews conducted for this analysis indicate a need and opportunity in Pierce County for expansion of value-added food processing to promote local agriculture.

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7 For this analysis food processing does not include retail on-premises bakeries, coffee roasters, soft drink bottlers, or bottled water businesses.
Organic Certified Processors

The WSDA currently certifies five businesses that produce organic processed food products in Pierce County. These include: two meat processors (one of the meat processors produces a range of organic products including beef, chicken, and cheeses); one bakery that uses organic wheat flour; and two organic coffee roasters using imported coffee beans. As mentioned earlier, it is possible that several additional small-scale food processors are certified by other third-party organic certification organizations. Some observers have suggested that smaller farms may not undertake certification because they object to the paperwork or the regulations, and instead prefer to emphasize their commitment to organic / sustainable production practices.

FOOD CATERERS

Pierce County has 27 licensed food catering businesses which serve food off-site, and 16 businesses which serve catered food only at their own premises. The catering trade includes a number of independent catering businesses, local restaurants and other entities such as universities and the Tacoma Convention Center.

Several caterers say it is very rare for them to procure locally grown (Pierce County) foods. Reasons include: 1) the availability and quality of local crops are largely unknown by caterers; 2) caterers believe that their use of these foods is small and too infrequent to allow for reasonable delivery cost by farmers in comparison to the traditional food service distributors who make regular deliveries to these businesses; 3) purchasing local products would add management and hired labor cost for caterers because it is outside of their normal and highly standardized purchasing channels; 4) the food cost to caterers are expected to be higher than at present; and 5) the Tacoma-Pierce County Health Department regulations discourage food handlers from buying farm crops from anyone but those holding food permits or licensed by the state.

On the positive side, one national caterer points to a thriving “buy local” trend in food procurement. This expert foresees that restaurants and caterers can establish a point of differentiation from competitors with customers who prefer to enjoy / support local agriculture for their commissaries and catered events. Other caterers express interest in learning more about local foods, realizing that product quality could increase through quick delivery of fresh, local products. In this case, higher prices (if any) for local foods are justified, as least for some customers, based on a perception of higher quality.

FOOD DISTRIBUTORS

Pierce County is home to two large food distributors which have refrigerated and dry warehouse space, and extensive local and regional distribution capability. This sector has experienced consolidation, and very few smaller and specialty produce distributors remain in the County to supply restaurants, hospitals and other institutional food buyers. Most local distributors have left the business and have been replaced by fewer, larger regional operations. Local farmers have sought markets elsewhere, believing they have little chance to sell to the major food service distributors.

It is generally true that distributors purchase fresh produce from suppliers that can sell year-round and offer a large, diverse mix of fruits and vegetables. However, unique marketing opportunities exist, as shown by one local farmer who has an innovative arrangement with a local food service company to supply a specialty fresh vegetable item each year at the Puyallup Fair. Also the military market is a local opportunity afforded local farmers. One farmer reports that their largest single market for fresh pumpkins is at Fort Lewis.

8 Source: Tacoma-Pierce County Health Department Food and Community Safety Program.
CONSUMER FOOD SALES

Consumer Behavior and Attitudes

Recent and relevant consumer research was conducted by Washington State University in 2002 in four Washington counties. King and Skagit Counties were the two Westside counties included in this research. Pierce County shares certain similarities with both of these counties and it is reasonable to consider that consumer attitudes from King and Skagit counties bracket the likely responses of Pierce County residents.

Relevant survey highlights:

- Grocery stores dominate over every other venue for the consumer shopping trips. In King County 97.4 percent of the respondents say they shop in a grocery store one or more times per week. In Skagit County the comparable percentage is 92.8. In both counties, grocery stores are a preferred place to shop – in both cases the respondents answered “yes” to grocery stores over 94 percent of the time.

- Discount stores are the second highest preferred place to shop after grocery stores in both King and Skagit Counties. Seventy-three (73) percent have an expressed preference for discount stores in Skagit County, and 58.2 percent share this preference in King County.

- In King County, farmers markets are the third most preferred place to shop (after grocery and discount stores): 55.8 percent expressed a preference for the farmers markets. In Skagit County farmers markets ranked fourth, with 43.4 percent expressing preference for them (after grocery, discount and roadside stands).

- Having local/close access to growers is correlated to the frequency of purchases directly from farmers. In Skagit County, 22.3 percent say they visit a roadside stand once or more per week; in King County the percentage is 5.9. About 13 percent of Skagitonians say they buy directly from farmers once or more per week, while about 7 percent of King County residents report the same frequency of direct farm purchases.

- Skagit and King Counties have almost identical percentages of their residents reporting that they frequently shop at farmers markets. In Skagit County, 16.0 percent say they shop one or more times per week in farmers markets; in King County the comparable percentage is 15.7 percent. The wide-spread availability of farmers markets in King County (which had 25 farmers markets at the time of the survey) is likely one key reason why the much more urbanized King County shoppers are going to farmers markets nearly as frequently as Skagitonians.

- Among the possible foods that consumers purchased directly from farmers (at farmers markets, CSAs, stands, etc.) the clear products of choice are fresh fruits and vegetables. In Skagit County, over 60 percent of the respondents said they bought fresh fruits and vegetables, in King County the percentages were each over 50 percent. Eggs, dairy products and processed foods were next in purchase frequency, but in the much lower range of 14 to 24.5 percent of the time.

- Among respondents in both counties who reported that they had never shopped at a Community Supported Agriculture (CSA) farm, the vast majority said they were not familiar with this

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method of buying food (69.2 percent reported this from the Skagit survey, and 70.6 gave this response in King County).

- Most shoppers say they have knowledge of the origin of the food they buy. In Skagit County, 79.6 percent say they “sometimes” or “often” know the origin of food. The comparable percentage in King County is 67.8 percent.

- Large percentages of consumers, when asked what factors impact their food shopping, say that local or in-state grown foods have importance. In King County, 28.3 percent say “produced locally” is very important. A higher percentage say “grown in Washington State” is very important. In Skagit County, 37.3 percent answer “produced locally” is very important and 40.5 percent say “grown in Washington State” is very important. This suggests that “grown local” and “grown in Washington” have similar preference for many consumers in this survey.

- The survey asked consumers to evaluate 17 factors when they shop for food. Among all factors the top five “very important” factors cited most often by King County respondents are: freshness (94.2%), taste (89.5%), nutritional value (78.2%), available where normally shop (75.2%), and variety (61.2%). In Skagit County, the top five responses where: freshness (94.5%), taste (92.0%), nutritional value (76.4%), available where normally shop (72.6%), and keeps local farmers in business (69.2%).

What are the implications of these survey results for Pierce County? The results show that western Washington residents shop at many different types of food outlets, with their first, very strong preference being grocery stores. Consumers show interest in knowing the source of their foods and they have a wide range of preferences which can benefit local farmers – including freshness, taste and nutritional value. Many consumers also prefer shopping where they can buy directly from farmers. For some shoppers, price is not the first factor they use to determine their food purchases. Some of the challenges that local farmers face include: getting consumers to shop where local foods are offered and/or placing local foods where consumers shop; offering more variety in foods; and also becoming better known to shoppers.

Since consumers have similar preference for “locally grown” and “grown in Washington”, Pierce County growers could find significant demand for their products in King County or elsewhere in the greater Puget Sound region. This enhances their marketing opportunities beyond the immediate Pierce County area.

The popularity of farmers markets is rather remarkable since these markets are still relatively new in most locations in the state. In King County, most of the markets have opened in the last 10 years. The King County survey shows these markets to be very popular with significant segments of the population.

CSA farms are still in their infancy, and survey results suggest relatively few Westside consumers in either county knew about them. Other models, such as CSAs offering customer delivery service, may help this form of marketing grow more rapidly.

**Retail Groceries**

Pierce County has a large number of chain supermarkets, and also several independent supermarket retailers. The chains in Pierce County include: Albertson’s with nine stores; Fred Meyer with nine stores; QFC with five stores; Safeway with 19 stores; and Trader Joe’s one store.\(^\text{10}\) Regionally and nationally, the two dominant food retailers who are exerting competitive pressure on the other grocery chains are

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\(^{10}\) Source: Store number estimates in this section are based on analysis of business data from the State of Washington, data from DexOnline.com, review of grocery store web sites and calls to companies.
Wal-Mart and Costco. However, they can be a dominant factor even with a relatively small presence in Pierce County. Wal-Mart has one Supercenter store in Puyallup with a full grocery department. Costco has two stores in the County (with another in the planning stages in Gig Harbor).

The two main independents are TOP Foods and Metropolitan Markets. TOP Foods has three stores and Metropolitan Markets has one store in the County. There is one Thriftway store in Pierce County. Smaller, natural food stores also offer viable sales channels for local farmers.

Grocery retailing is highly competitive and in a state of flux as traditional chains try to maintain profitability and prevent market share losses to the industry’s growth giants, Wal-Mart and Costco. Albertson’s announced in September 2005 that it is considering the sale of under-performing stores. Most of the grocery chains in Washington are re-evaluating their strategies to attract and retain consumers, and several are likely to seek a clear differentiation from the low price leaders. Offering local fresh foods is likely to gain interest among a select group of grocery stores as one such strategy.

The larger chains have a significant challenge with local sourcing because they want assurance of continuous supply and volumes adequate to meet annual needs. To source locally grown produce, chains would need to find a cost competitive way to alter their centralized buying and distribution systems.

Farmers Markets

Pierce County farmers markets have become a growth component of food sales, with local farmers joining other Washington farmers as the backbone of this sales channel. According to the Washington State Farmers Market Association, in total, all of the Pierce County farmers markets grossed $1.75 million in 2004.11 The Association estimates that food sales account for about 75 percent of the total sales at the markets. Thus, farmers’ gross revenues can be calculated to approximate $1.3 million. Sellers include growers from throughout the state with local farmers being the primary beneficiaries. Farmers markets state-wide have had sustained annual sales growth of approximately 20 percent. However, sales growth in 2003 to 2004 was more moderate, at about 7 percent. Early indications for 2005 sales are that sales are back on a higher growth track closer to the longer term trend.

The director of the Washington State Farmers Market Association indicates that food sales at farmers markets are estimated to total one-half of one percent of all food sales in Washington. If the results of the 2002 survey results from King and Skagit Counties are accurate, there appears to be a bright future for this market channel. In Pierce County, the question revolves around whether consumers have the same preferences for purchasing foods at farmers markets as in other Puget Sound counties, or whether there are other factors at work which might negatively affect demand. For example, two Pierce County farmers who have long experience in local farmers markets say that local consumers will not pay the same prices for fresh fruits and vegetables as King County residents pay. For some Pierce County farmers these markets work well, but this is not universally true for local growers.

Community Supported Agriculture

As a whole, CSAs in Pierce County sell approximately $200,000 to $250,000 of locally produced foods annually. With minor exceptions, local CSAs rely on consumers coming to the farm to pick up shares. In addition, Tacoma area residents are in the home delivery “service area” of other CSAs located in western Washington. Local CSA farming is in an early stage of development and sales could expand in the future if new farms adopt this business model. CSAs are further discussed in Task 4 – Trends and Forecasts.

11 Sales data provided by Zackary Lyons, Director, Washington State Farmers Market Association.
Farm Stands and Other Direct Sales

There are both year-round and seasonal farm stands in the Puyallup Valley. No data has been reported on the sales from these ventures and actual sales volumes are subject to seasonal fluctuations. Farm stands offer another successful market outlet and reliable profit center in several cases. Factors related to success include highway location, access, visibility, and the ability and willingness of individual farmers to market their products. Some farmers have indicated that their strength is not in direct sales and so they have either never tried farm stands or have had unsuccessful experiences.

Demand for delivery of fresh local food is also being met by delivery services which act as a kind of shopping service for urban dwellers who want local foods but cannot or do not want to go out to one or more farms to pick up their items. Typically these consumers want organic foods or other specialty fresh foods. They place orders that are filled and delivered to their residence. At least one CSA in Pierce County does this in very limited cases. Delivery services are much more common in locations such as Seattle and Portland.

LAND USE AND LAND MARKET PRICES

Amount & Location of Agricultural Land in Pierce County

Data sets developed by the Economic Development Division, Office of the Pierce County Executive, provide perhaps the most accurate current estimate of agricultural land quantity and geographic distribution. Using records provided by the Pierce County Assessor’s Office, the project team identified six individual agricultural areas: Puyallup Valley; Anderson Island/Nisqually Delta; Bonnie Lake-Buckley Plateau/Carbonado; Central County; Peninsula; and Roy/Eatonville.

Parcels within each of these agricultural areas generally fall into one of five use classes.

- **Use Class 1 - Agricultural Resource Land Only.** Zoned ARL, but not assigned Agricultural Current Use Assessment or other agricultural designation in the Assessor/Treasurer database.
- **Use Class 2 - Agricultural Use with Agricultural Current Use Assessment Only.** These parcels are utilized for agricultural purposes as indicated by enrollment in the Current Use Assessment program, but are not zoned ARL.
- **Use Class 3 - Agricultural Use without Agricultural Current Use Assessment Only.** These parcels are utilized for agricultural purposes as indicated by the Assessor/Treasurer land use code (8100 to 8200), but are not enrolled in the Current Use Assessment program and are not zoned ARL.
- **Use Class 4 - Agricultural Resource Land with Agricultural Use.** These parcels are zoned ARL, and are utilized for agricultural purposes as indicated by either enrollment in the Agricultural Current Use Assessment program, or are designated as agricultural use by the Assessor/Treasurer land use code (8100 to 8200).
- **Use Class 5 - Agricultural Resource Land with other Current Use Assessment designation.** These parcels are zoned ARL, and are enrolled in either the Open Space or Timberland Current Use Assessment program.

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12 The Pierce County Geographic Information System (GIS) was used for this analysis. Parcel information is from the Assessor/Treasurer “Tax Parcel” theme. Parcel acreage was calculated from the X-Tools “calculate area” function for parcel polygons.
Parcels in use classes 2, 3 and 4 are considered agricultural in this analysis. Class 1 acreage is not included because agricultural use could not be verified. Class 5 is not included because that acreage is enrolled in either open space or timber current use programs. Each of these parcels in use classes 1, 2, and 3 has either been enrolled by the property owner in Agricultural Current Use or is designated as agricultural by the Assessor/Treasurer. By this determination, there is a total of 28,890 acres of land in agricultural use in Pierce County, as shown in Table 2.

<table>
<thead>
<tr>
<th>Use Class</th>
<th>Number of Parcels</th>
<th>Acres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1,349</td>
<td>16,859</td>
</tr>
<tr>
<td>2</td>
<td>1,185</td>
<td>18,803</td>
</tr>
<tr>
<td>3</td>
<td>23</td>
<td>199</td>
</tr>
<tr>
<td>4</td>
<td>443</td>
<td>9,888</td>
</tr>
<tr>
<td>5</td>
<td>111</td>
<td>2,132</td>
</tr>
<tr>
<td>Subtotal for Classes 2, 3 &amp; 4 (Used for agriculture)</td>
<td>1,651</td>
<td>28,890</td>
</tr>
<tr>
<td>Total, All Classes</td>
<td>3,111</td>
<td>47,881</td>
</tr>
</tbody>
</table>

1 See text for definitions of use classes.

Source: Pierce County GIS system; “CountyView”, as analyzed by Robert Allen, Economic Development Division, Office of the Executive, October, 2005.

The ARL zone was established by Pierce County to recognize lands of long-term commercial significance as required by the state’s Growth Management Act mandate. Some lands in this zone may not be categorized as commercial use based on current use assessment.

The amount of agricultural land by the six sub-areas of the County is presented in Table 3. As shown, the Puyallup Valley comprises 4,905 acres of the total agricultural land in Pierce County, or approximately 17 percent of all Pierce County agricultural land. The largest amount of agricultural land is in the Roy/Eatonville area: 12,523 acres, or 43 percent of the total. All of the sub areas have significant amounts of agricultural land, except the Anderson Island/Nisqually Delta area.

In forecasting the trend of agricultural land conversion to development use, it is helpful to examine plat activity. While platted land may not be developed immediately, it does show an intention to sell or develop the parcel. As indicated in Table 3 below, almost 15 percent of agricultural land in the Bonnie Lake/Buckley Plateau is platted (548 acres out of 3,755 acres) and about 11 percent of Puyallup Valley agricultural land is platted (526 acres out of 4,905 acres). In the remaining four agricultural areas, the platted land is less than 10 percent of overall agricultural land area. Commercial development activity, or plats under construction, would be added to this total and increase the overall volume of lands with conversion potential.
### Table 3 – Land in Agricultural Use and Plat Activity by Sub-area in Pierce County: 2005

<table>
<thead>
<tr>
<th>Agricultural Sub-Area</th>
<th>Agricultural Land (Acres of Use Class 2, 3, &amp; 4)</th>
<th>Agricultural Land with Plats Pending 1</th>
<th>Ag Land with Plats Pending As Percent of Total Ag Lands</th>
</tr>
</thead>
<tbody>
<tr>
<td>Puyallup Valley</td>
<td>4,905</td>
<td>526</td>
<td>10.7%</td>
</tr>
<tr>
<td>Anderson Island/Nisqually Delta</td>
<td>123</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Bonnie Lake - Buckley Plateau / Carbonado</td>
<td>3,755</td>
<td>548</td>
<td>14.6%</td>
</tr>
<tr>
<td>Central County</td>
<td>5,172</td>
<td>341</td>
<td>6.6%</td>
</tr>
<tr>
<td>Peninsula</td>
<td>2,414</td>
<td>64</td>
<td>2.7%</td>
</tr>
<tr>
<td>Roy / Eatonville</td>
<td>12,523</td>
<td>146</td>
<td>1.2%</td>
</tr>
<tr>
<td>Total</td>
<td>28,892 2</td>
<td>1,625</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

1 Plats include formal, short, large lot and mobile home. Commercial permit activity is not included.
2 Total agricultural land does not agree with totals reported elsewhere due to rounding.
Source: Pierce County GIS system; “CountyView”, as analyzed by Robert Allen, Economic Development Division, Office of the Executive, October, 2005.

### Land Prices

Pierce County has two distinct markets for agricultural land. Agricultural land that is in very close proximity to cities is in very high demand for housing and commercial development. A different land market exists in the rural areas of the County where development demand is much lower.

A recent national analysis evaluated county-level data to determine the factors that establish market prices for farmland. This analysis shows that Pierce County has joined other major metropolitan areas throughout the U.S. where the farm value of land now represents only a fraction of full market value. In most urban counties, the agricultural value of farmland is now below 30% of market value. This is corroborated by the Pierce County Assessor’s Office data for agricultural land in the Current Use taxation program. For 2004, the most recent year for available data, the Assessor’s Office estimates the value for agricultural use was only 15 percent of the full market value for the agricultural land county-wide.

Land in the Puyallup Valley (where farming is often side-by-side with development) is selling in the range of $50,000 per acre up to as much as $1.0 million or more. Farmers are well aware of the substantial market prices being paid for land, and many want to keep open the option to sell their land now or in the future. There are a wide range of reasons that farmers want to preserve this option. In some cases, there are no family members to carry on the farming operations when the current generation wants

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to stop farming. In other cases, the land owners say the farmland represents a significant share of their total assets and many farmers want to realize the full sales value of the land for their “retirement plan”.

According to farmers and nursery operators in Pierce County, they can currently lease land for as little as $300 per acre per year, to a high of $1,000 per acre or more. Factors that affect rental rates include the availability of water and proximity to other land in the leaseholder’s operation.

A comparison of farmland rental rates to land prices illustrates the problem farmers face when bidding for land against non-farm buyers. Using typical cash rent of $750 per acre for cropland, and a capitalization rate of eight percent, the equivalent market value of the land for farming is $9,375 per acre. Crop farmers are often willing to pay more than the capitalized value of the land for crop production if they expect crop prices to increase in the future or if they view land as a good long term investment for possible future sale. Nurseries are often willing to pay even more for land than food crop producers because nurseries earn a higher gross income per acre. Nonetheless, even if growers pay $10,000 to $15,000 per acre to purchase land, they do not come close to matching the prices developers are able to pay.

**CONTRIBUTIONS OF AGRICULTURE TO THE LOCAL ECONOMY**

Key economic contributions of agriculture are estimated here through analysis with an input-output model that traces significant local economic linkages within Pierce County. There are seven sectors that describe agricultural production in the model. Table 4 presents a sub-sector summary of the contributions of Pierce County agriculture to the local economy.

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Industry Output (Millions)</th>
<th>Total Employment</th>
<th>Employee Compensation (Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable Farming</td>
<td>$6.15</td>
<td>116</td>
<td>$1.36</td>
</tr>
<tr>
<td>Fruit Farming</td>
<td>$7.44</td>
<td>106</td>
<td>$2.20</td>
</tr>
<tr>
<td>Greenhouse &amp; Nursery Production</td>
<td>$28.75</td>
<td>387</td>
<td>$15.22</td>
</tr>
<tr>
<td>All Other Crop Farming</td>
<td>$2.59</td>
<td>63</td>
<td>$0.24</td>
</tr>
<tr>
<td>Poultry / Egg Production</td>
<td>$11.77</td>
<td>48</td>
<td>$1.28</td>
</tr>
<tr>
<td>Animal Production Except Cattle, Poultry &amp; Eggs</td>
<td>$5.60</td>
<td>122</td>
<td>$0.93</td>
</tr>
<tr>
<td>Cattle Ranching / Farming (includes Dairy)</td>
<td>$53.17</td>
<td>1,028</td>
<td>$4.30</td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$115.47</strong></td>
<td><strong>1,870</strong></td>
<td><strong>$25.53</strong></td>
</tr>
</tbody>
</table>

Source: IMPLAN using 2001 Pierce County data.

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14 IMPLAN is an economic model which has been applied to 2001 Pierce County data. The model was developed in 1987 and is now a proprietary product of the Minnesota IMPLAN Group. The model is widely used in the U.S.
Table 4 shows that agriculture contributed an estimated $115.5 million of output to the economy and over 1,870 jobs in the County in 2001. Employment compensation was over $25 million. Although this data is four years old and some elements of agriculture have declined with land conversion to other uses, agriculture remains a substantial contributor to the local economy. This is further discussed below.

Another way to look at the contributions of agriculture is to consider that vegetable farming, fruit farming, greenhouse and nursery production and half of “other crop” agriculture takes place primarily in the valley areas of the county. The remaining half of “other crop agriculture” and all livestock/poultry related agricultural production activities take place mainly in the upland areas. Under this scenario, valley agriculture contributes $44 million of output (40 percent of total agricultural production) and upland agriculture contributes the remaining $72 million of agricultural output. Therefore both geographic areas can be considered equally important contributors to the production base of Pierce County.

Table 5 displays the economic multipliers related to each sector of agricultural production in Pierce County as of 2001.

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Employment Multiplier</th>
<th>Labor Income Multiplier</th>
<th>Value Added Multiplier</th>
<th>Indirect Business Taxes Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable Farming</td>
<td>1.36</td>
<td>1.87</td>
<td>3.12</td>
<td>0.05</td>
</tr>
<tr>
<td>Fruit Farming</td>
<td>1.58</td>
<td>1.75</td>
<td>3.35</td>
<td>0.15</td>
</tr>
<tr>
<td>Greenhouse &amp; Nursery Production</td>
<td>1.42</td>
<td>1.31</td>
<td>7.50</td>
<td>0.28</td>
</tr>
<tr>
<td>All Other Crop Farming</td>
<td>1.25</td>
<td>2.94</td>
<td>0.93</td>
<td>0.05</td>
</tr>
<tr>
<td>Poultry/Egg Production</td>
<td>2.00</td>
<td>2.25</td>
<td>2.28</td>
<td>0.02</td>
</tr>
<tr>
<td>Animal Production Except Cattle, Poultry &amp; Eggs</td>
<td>1.23</td>
<td>1.93</td>
<td>0.79</td>
<td>0.08</td>
</tr>
<tr>
<td>Cattle Ranching/Farming (includes Dairy)</td>
<td>1.58</td>
<td>3.54</td>
<td>2.42</td>
<td>0.90</td>
</tr>
</tbody>
</table>

1 All multipliers are type SAM (Social Accounting Matrix) and include the direct, indirect and induced effect where the induced effect is based on information in the social account matrix of the model. This accounts for social security and income tax leakage, institutional savings and commuting.

Source: IMPLAN using 2001 Pierce County data.

The aggregate employment multiplier of all seven agricultural sectors is approximately 1.45. For every job directly held at the production level of agriculture, another 0.45 jobs exist in the County due to indirect and induced economic effects. At an estimated agriculture job count of 1,870 in 2001, there were an additional 960 jobs in the County which were dependent on local agricultural production. Total labor income with indirect and induced effects is about $45 million which includes direct agricultural production employment compensation of $25.5 million. Value added from agriculture, which includes
payments by the agricultural sectors to workers, interest, profits and indirect business taxes added about $71.6 million to the County economy in 2001.

Regarding taxes, the IMPLAN estimate is that the seven agricultural production sub-sectors generated about $1.5 million in business taxes for the county and state in 2001. These taxes include sales, business and occupation, property, excise, licenses and other taxes paid by the normal operation of businesses. Through the inter-industry linkages of agriculture to other sectors of the Pierce County economy and the induced effects, production agriculture also generated an additional $4.1 million in indirect business tax revenue.

COMPETITIVE ADVANTAGES OF SERVING LOCAL MARKETS

Agricultural producers in Pierce County have several key advantages in serving customers who reside in Pierce or neighboring counties. First, they have the opportunity to regularly meet and know their buyers and final customers. They have the advantage in tailoring their products and services to the consumer. Second, suppliers can emphasize that they have common interests with buyers. This includes providing the freshest possible products, supporting local businesses and other common concerns. This builds added loyalty. In these ways, Pierce County agricultural producers can link up with a segment of the consumer market whose product preferences are not as well met by non-local suppliers.

Another specific advantage: transportation costs. At current diesel fuel prices (as of October 2005) the freight cost of a truck-load shipment of fresh produce from California had recently increased by $1,000 per load. If this cost of fuel remains high, local farmers may soon become more cost-competitive with large, out-of-state suppliers.

A final direct competitive advantage of local products relates to helping retailers distinguish themselves from their competition. The largest supermarket firms use central warehouse and delivery systems that feature mass-volume products. For consumers who seek fresh products or unique products such as organic or sustainable foods, sourcing from local farmers and processors allows small supermarkets to offer different products, and attract customers to their businesses. In this case, the producer and retailer, as well as the ultimate consumer, are all best served.

COUNTY DEMOGRAPHICS AND WILLINGNESS TO BUY LOCAL FOODS

The main market outlets for Pierce County agricultural producers and processors are locally based, and this is likely to remain so in the future. Indeed, the future economic viability of local farming will be closely associated with the growth in demand by Puget Sound consumers for local foods. The demographic characteristics of Pierce County residents are the starting point for determining the future character and size of the County’s agriculture. Key demographic factors are summarized in Table 6.

Pierce County has a growing and increasingly more affluent population. They form an important foundation for local food demand. From 2004 to 2009, the population is forecast to increase by 61,650.15 The most significant population growth is expected to be in the 55 to 64 age group, which traditionally has significant income growth, as well as the propensity to eat more foods at home and is increasingly health conscious. This bodes well for expanding consumption of local foods including fresh and processed products.

Other middle age groups are also forecast to expand (including 45-54 year olds). This is also an indicator that local food demands can be expected to increase relative to the present level.

15 Demographics.Com by SRS LLC, 2005.
Table 6 – Pierce County Demographic Snapshot: 2004

<table>
<thead>
<tr>
<th>Demographic Factor</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>753,000</td>
</tr>
<tr>
<td>Households</td>
<td>281,600</td>
</tr>
<tr>
<td>Average Household Size</td>
<td>2.67 persons</td>
</tr>
<tr>
<td>Median Age</td>
<td>34.8 year &amp; rising</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>78% White, 7% Hispanic, 5% Black, 5% Asian</td>
</tr>
<tr>
<td>Educational Attainment</td>
<td>30% High School Degree, 29% Post Secondary Degree</td>
</tr>
<tr>
<td>Average Household Income</td>
<td>$65,200</td>
</tr>
</tbody>
</table>

Source: Demographics.Com by SRS LLC, 2005.

Income is also a key factor in establishing the level of local food demand. Rising real (inflation adjusted) income will result in increased consumption of higher quality and higher priced foods, especially fresh foods from the local area. Pierce County household incomes are steadily rising in both current price and real terms. In current dollars, the 2000 average household income was almost $55,000 and it rose to $65,200 in 2004. In constant 2004 dollar terms, the average household income increased by $9,300 from 2000 to 2004. Figure 1 shows the trend in County average household income in current dollars, and in inflation adjusted terms for 1990, 2000 and 2004 along with a forecast for 2009.
One demographic trend that does not bode well for increasing demand for local foods is the educational attainment of Pierce County residents. Higher levels of education are positively correlated with consumer decisions to buy local foods. The proportion of the County population graduating high school or earning post secondary degrees has been static from 1990 to 2004, and is forecast to remain so through 2009.

Local demand for Pierce County agricultural products is not limited to only Pierce County consumers. In this regard, the greater Puget Sound region is the market for Pierce County growers and processors. The 2004 population of Pierce, King, Kitsap and Thurston counties totaled just under 3 million. Average household income for this four county group was $72,700 in 2004. The four-county population growth from 2004 to 2009 is expected to grow by 135,000. These are indicators of near-term potential for regional sales growth for Pierce growers if they compete for this business. A market opportunity of this size naturally also attracts competitors in other counties to serve this growing demand.

The demographic factors show that demand growth will be greatest within the Puget Sound region, but outside of Pierce County. This market for local agriculture products should be carefully considered by any new or expanding grower in Pierce County.

**PRODUCTIVITY INDICATORS FOR COMMERCIAL AGRICULTURE**

Since the 1960s, there has been a trend toward farm consolidation in the U.S, resulting in increasing average farm size. The Pierce County analysis shows larger traditional farms are in decline, with the conversion of land to development uses. This section looks at productivity indicators of farms, to evaluate if the remaining farms and new, smaller farms can be competitive.
A publication on business opportunities for small farms in Oregon provides useful data on gross farm returns. Table 7 presents the per acre data from that publication for establishment cost, annual cost and gross returns for relevant crops produced in Pierce County.

Table 7 must be evaluated with care. If it is assumed the direct operating expenses are 50 to 60 percent of gross sales, the remaining margin must cover the operator’s management and risk, and land costs (principal and interest on the mortgage or the opportunity cost represented by using the land for agricultural production). The high opportunity cost of using land for agriculture, when its value is much higher for development, is a serious impediment to the long run viability of farming in Pierce County.

USDA analysis for 2003 (the only year of available data at the state level) shows that farmers had an average rate of return on assets of well under five percent. This rate of return on assets is lower in urbanizing areas like Pierce County where farmland values are rising rapidly. In strict economic terms, larger farms usually (but not always) have efficiency advantages over small farms. This efficiency is usually gained by spreading the fixed costs of operation over a larger amount of production and also utilizing equipment or other assets that save labor per unit of production.

Pierce County farmers who sell in the mass volume retail supermarket trade are competing against large farms that account for large shares of production in most crop categories. The largest fresh vegetable farmers in Pierce County report that their competitors are the major California produce farms and shippers who deliver fresh produce to the Pacific Northwest. Market conditions in the major out-of-state growing areas of California, Texas, Arizona and Florida establish the basis for the market prices paid by local produce distributors and retailers. As one stakeholder put it, “Pierce County farmers have been price followers, not price setters” at least in terms of selling at the national grocer level.

---

<table>
<thead>
<tr>
<th>Enterprise</th>
<th>Establishment Costs</th>
<th>Annual Costs</th>
<th>Gross Returns/Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nursery Stock ²</td>
<td>$3,000 to $20,000</td>
<td>$3,000 to $10,000</td>
<td>$10,000 to $30,000+</td>
</tr>
<tr>
<td>Flower Bulbs</td>
<td>--</td>
<td>$2,000 to $9,000</td>
<td>$4,000 to $14,000</td>
</tr>
<tr>
<td>Fresh Vegetables</td>
<td>--</td>
<td>$1,500 to $5,000</td>
<td>$2,000 to $7,000</td>
</tr>
<tr>
<td>Onions</td>
<td>--</td>
<td>$2,500 to $3,000</td>
<td>$1,600 to $5,000</td>
</tr>
<tr>
<td>Wine Grapes ²</td>
<td>$7,000</td>
<td>$1,200 to $2,300</td>
<td>$1,800 to $4,000</td>
</tr>
<tr>
<td>Strawberries (3-year life)</td>
<td>$1,500 to $2,500</td>
<td>$2,000 to $3,500</td>
<td>$3,000 to $6,000</td>
</tr>
<tr>
<td>Raspberries (8 year life) ¹</td>
<td>$3,000</td>
<td>$1,700 to $2,800</td>
<td>$2,000 to $6,000</td>
</tr>
<tr>
<td>Blueberries ²</td>
<td>$5,500</td>
<td>$2,000 to $4,000</td>
<td>$2,000 to $6,000</td>
</tr>
<tr>
<td>Christmas Trees ³</td>
<td>$1,000 to $1,600</td>
<td>$600 to $800</td>
<td>$9,000 to $16,000</td>
</tr>
<tr>
<td>Grass Hay</td>
<td>--</td>
<td>$70 to $150</td>
<td>$100 to $180</td>
</tr>
<tr>
<td>Cow/Calf</td>
<td>--</td>
<td>$80 to $100</td>
<td>$70 to $200</td>
</tr>
<tr>
<td>Sheep</td>
<td>--</td>
<td>$100 to $500</td>
<td>$275 to $650</td>
</tr>
</tbody>
</table>

¹ It often takes 1 to 3 years before return.
² There is typically no return for 3 to 4 years after establishment. Costs vary with harvest requirements.
³ There is typically no return until 6 to 8 years after planting. Most annual costs are concentrated in the last 3 years before harvest.

Note: “Annual costs” are an average per year over the production cycle. “Gross returns/year” is for the year of harvest. The estimates represent a range under normal conditions for commercial-quality crops. They do not include expenditures for equipment except structures for nursery production. They do not include weather-related crop loss or extreme price swings. These values are based on sales via wholesale markets and do not represent the higher gross receipts from direct marketing.


Pierce County farmers are almost always at a competitive disadvantage when in direct competition against larger farms selling substantially the same product in the mass supermarket trade. However, Pierce County farmers who produce unique crops or add value through innovations in marketing or processing can fill market channels and reach customers where there is substantially less competition or competitors have the same cost structure and cannot undercut the price of local producers. A unique crop may be different from the mass produced crops in some discernable trait the consumer values, such as freshness or the way the crop is grown, harvested or presented. A product with the desired traits is differentiated from mainstream crops and therefore sells at a higher price which can cover the higher costs of smaller growers in Pierce County.
NEGATIVE IMPACTS OF OPERATING NEAR URBAN CENTERS

It has been reported in western Washington that “tensions in fringe areas contribute to the wearing down of farmers who sometimes feel unwanted in urban areas.” From a recent survey of stakeholders and comments at Alderton-McMillin Planning Board meetings it appears this attitude clearly exists among a group of Pierce County farmers.

Interviews with farm community members and others have highlighted the serious incompatibilities between farmers and urban dwellers. Dense urban development is close to or even surrounds many agricultural producers. This close proximity is a serious and growing problem. Farmers tolerate the problems for the most part, but the nuisance factor is real and cause problems for agriculture. Recognition of the inherent incompatibilities between agriculture and close-by urbanization led to the passage of Pierce County’s Right-to-Farm ordinance in 2001. This ordinance is important because it gives a measure of legal protection to farmers from lawsuits when they operate in accordance with normal and reasonable business practices.

A code enforcement officer in Pierce County who receives land use related complaints reports that in eight years, they cannot recall a single complaint lodged by residents about farmer activity such as dust or operating outside of normal business hours. Similarly, the Pierce County Health Department has fielded very few complaints about agricultural activity. Pierce County Sheriff’s Department officers in two precincts also report they rarely receive calls from residents complaining about farmer activity. Nonetheless, farmers say that they hear complaints from neighbors about odors, dust, equipment noise from very early or late day operations, and from traffic slowdowns when farm equipment is moved on the roads. Farmers also report continuing problems with vandalism and theft, adding farmer costs and exacerbating conflict between farmers and urban dwellers.

SUMMARY AND CONCLUSIONS

We estimate there are 75 producers of food crops in the County who exceed an annual income of $20,000. There are another 30-40 growers who have ornamental plant crops and 5 to 6 commercial dairies in the County. The commercial livestock producers mostly raise beef cattle and horses but there are no accurate estimates of how many are actually commercial producers.

Pierce County has experienced a steady decrease in both number of commercial farmers and total acreage of land utilized for agricultural purposes. Some of the major and traditional agricultural crops and products have declined significantly, with prime examples being raspberries, rhubarb, and milk production. On the other hand, there remains a very diverse array of crops and livestock produced in the County, and a few new, smaller farms have recently entered the industry. The current level of organic production is but a small fraction of overall agricultural production in Pierce County. There are six growers who have a total of 137.5 acres in production in the County. See Task 4 for more discussion of this trend.

Rapidly rising land prices have harmed the farm sector in Pierce County. Farmers often choose to sell their land and take advantage of sudden and significant upward land prices brought about by surrounding

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19 Personal conversation with Jennifer Conners, Pierce County Planning & Land Services, October 21, 2005. It should be noted that complaints about noise are handled by other staff.
20 Personal conversation with Dave DeLong, Pierce County Health Department, October 24, 2005.
development. Selling price for buildable land in Pierce County is well over two or three times its value for agricultural use—and often much more.

One of the main advantages for Pierce County farmers is ready access to a growing urban consumer market. Market studies, such as the recent WSU analysis cited here, reveal a growing demand for local products, as consumers increasingly demand better access to fresh, safe foods. Population and income growth also point to greater demand within the Pierce County and greater Puget Sound market.

Farm profit and productivity studies show that agriculture will be challenged to generate enough income to support family farms now and into the foreseeable future. It will take very good management and a focus on customers willing to pay premium prices for most small farms to operate profitably.
December 28, 2005 (Revised)

To: Rob Allen, Pierce County Economic Development Division
From: Barney & Worth, Inc. and Globalwise, Inc.
Subject: Pierce County Agriculture Strategic Plan
Task 3: Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

Agriculture in Washington and Pierce County is subject to the same competitive forces faced by producers and processors across the U.S. This task identifies and evaluates the major trends that present challenges and opportunities, particularly for small scale farmers and value added producers who operate on the urban fringe.

The SWOT (strengths-weaknesses-opportunities-threats) analysis is intended to serve as a summary document, highlighting the most important issues and trends expanded upon in other technical memoranda.

Pierce County Agriculture – **Strengths**

Pierce County agriculture has a number of fundamental strengths and competitive advantages, including:

- Excellent soils and a moderate climate, including limited reliance on irrigation, provide a solid set of natural competitive advantages.
- Pierce County farmers have immediate access to an enormous, relatively affluent urban market (with nearly 750,000 people living in Pierce County alone, according to 2004 US Census estimates).
- Transportation costs (to reach the Puget Sound market) are low relative to out-of-state, non-urban competition.
- Existing small-size farms and nurseries are succeeding; showing that farm businesses can succeed in Pierce County.
- Key market infrastructure is in place and scalable: farmers markets, CSA/subscription farming, direct on-farm sales and restaurant buying.
- Farms and nurseries have a network and cooperative attitude which gives new farms an immediate entry point to aid their business development.
- Pierce County political / institutional support mechanisms are in place and engaged: Farm Advisory Commission, WSU Center for Sustaining Agriculture & Natural Resources / Extension, Pierce County Conservation District, in concert with elected officials.
• Regional support programs and entities are available: e.g., Puget Sound Fresh, FarmLink, and various local farmers markets.

• Many high demand crops and livestock are produced in Pierce County: fresh vegetables, fresh fruits, poultry meat, eggs, beef, bedding plants and nursery stock to name a few.

Pierce County Agriculture – Weaknesses

Key weaknesses and challenges that impede Pierce County agriculture’s economic viability include:

• Land is costly.

• Capital needs and risks are significant limitations for beginning farmers.

• Availability of rent/lease options and/or high payment levels are also a hindrance.

• Protection of farmers and farmland requires ongoing planning and zoning safeguards. Zoning codes and their enforcement have not been effective in keeping farms and nurseries separated and protected from urban encroachment.

• Little is known about the buying preferences of Pierce County residents for local agriculture, how much market demand growth potential exists for local food and nursery crops, and whether local shoppers are ready to shift more consumption to local products (which often sell at higher prices compared to high volume conventional sales outlets).

• The linkages of farming and agricultural land conservation to broader public benefits – such as water quality protection, open space value, and food security – are not readily quantifiable and not well-promoted community-wide.

• A lack of readily-available and well-promoted technical training in production, marketing and business management prevent some new and marginally profitable farmers from turning the corner.

• Global and out-of-state competition is increasing, impacting prices, market access and other factors that affect profit margins.

• Labor is increasingly scarce, with penalties for utilizing undocumented migrant workers becoming more severe.

• There is a diminishing supply of farm infrastructure, including cold storage facilities, processing/packing plants and implement dealers.

• A strict regulatory environment adds to farm costs and reduces profit margins (e.g. engineering plans required for farmstands).

• Encroaching urbanization limits normal farm operations (e.g. tractors on road, smoke, spraying, manure application, etc.)
Pierce County Agriculture – *Threats*

A number of impending challenges may create new or exacerbate existing barriers to economically viable agriculture in Pierce County. These barriers include:

- A critical (minimum) threshold amount of land and number of farmers are needed; otherwise the industry loses options to sustain itself and grow.
- The cost of meeting an increasing array of environmental protection measures is rising and is beyond most individual farmers’ ability to pay. Public and private funding may not be sufficient to cover future costs.
- Agricultural infrastructure may continue to decline (supplies, services, and expertise).
- Technical assistance offered locally appears to be less and less relevant to commercial operators.
- Many of Pierce County’s long-time farmers are nearing retirement, with few indicating they have a “succession” plan. A capable new generation of farmers is needed to step forward to accept the risks.
- Available land and parcel sizes are often not suitable for growing profitable, high-demand crops.
- Cheap imports, large-scale domestic farms and processors, and consolidated food retailers bring low cost foods to time- and money-strapped consumers, allowing local residents to quite easily overlook local agriculture offerings.
- The County’s current use tax program, which has provided necessary tax relief for years, may no longer provide enough incentive to offset the sharply rising “opportunity cost” faced by farmers with land in urbanizing areas.
- Residential neighborhoods encroaching in agricultural areas are increasingly limiting what techniques and activities farmers can employ to produce food (e.g. burning, pesticides, etc.).
- An increasing number of farmers report being “in the red” for longer periods of time, raising concerns among lenders and creditors.
- The consolidation of major markets, along with the need to increase inventory efficiencies, has led many corporate wholesalers to do business with out-of-area producers that benefit from longer growing seasons and a more stable food supply.
Pierce County Agriculture – **Opportunities**

Observers suggest, and research indicates, that Pierce County agriculture may benefit from a number of emerging opportunities. These include:

- Close proximity to the Puget Sound’s growing urban population is a natural and targeted market opportunity.

- Farm and land protection fit with the public policies and priorities of "green and sustainable living and commerce", which is gaining broader local / regional / national support.

- A policy to support local farms also offers healthy choices and increases food security for low-income and other disadvantaged populations.

- Currently, a very small portion of what is grown locally is consumed locally, indicating a tremendous market growth opportunity for selected products.

- Pierce County can join other Puget Sound governmental, non-profit and private efforts to be a stronger voice for further local and state-wide policies to link the region's farmers to agricultural land protection.

- The planning/zoning functions are being considered in the broader context of farm viability.

- Local government (city and county) can further "look to itself" to procure local foods and nursery crops, and ensure its own practices support local agriculture.

- Increasing attention is being paid to programs that assist farmers with business planning and marketing.

- Existing programs such as Washington State’s Women, Infant and Children (WIC) program, Pierce County’s *Healthy Choices Initiative* and others are laying the foundation for “buying fresh/local” and may offer excellent partnership opportunities.

- There is a growing list of individuals/families looking to enter farming in Pierce County. If land costs can be addressed, there is good potential the land can be kept in farm usage.

- Vertically integrated value added processing could be expanded to assist farmers secure more profit.
December 28, 2005 (Revised)

To: Rob Allen, Pierce County Economic Development Division
From: Bruce Prenguber, Globalwise, Inc.
Subject: Pierce County Agriculture Strategic Plan:
        Task 4: Agriculture Industry Trends

Agriculture in Washington and Pierce County is subject to the same competitive forces faced by producers and processors across the U.S. This technical memorandum identifies and evaluates the major trends that present challenges and opportunities, particularly for small scale farmers and value added producers who operate on the urban fringe.

Major Issues Facing Washington Agriculture

Agriculture in Washington has been facing a sustained series of changes and challenges. Major agriculture sectors here – such as fruit and vegetable production and processing, and beef production have been in general decline since the mid-1990s. Two reports conducted by noted economists chronicle the key challenges of Washington agriculture.\(^1\)

Following is a summary of the key issues they identify:

- **Worldwide restructuring of food markets** has been well underway since the 1990s. leading to increased *global competition*. China, Canada, Mexico, and competitors in many other regions of the world have expanded their production of food and agricultural crops and also processing and distribution. Aided by efficient ocean, rail and truck shipping systems, many countries are now strong international competitors in food production and marketing. These competitors are challenging U.S. producers and processors in both domestic and international markets.

- **A parallel and significant trend along with global competition** is the *concentration in food retailing*. Retailers have been able to reduce their costs by internal growth, mergers and acquisitions. In turn, this has encouraged a similar response of growth and concentration by food processors and farmers. A special difficulty for smaller growers and processors is that large processors and marketing companies have been integrating their operations with the mega-retailers. For example, retailers such as Wal-Mart have required suppliers to implement such business practices as electronic data interchange. This favors larger producers and processors who have greater resources and better access to technology to meet these retailer requirements. Larger suppliers also have the volume of production and consistency of supply that more closely match the needs of the mega-retailers.

\(^1\) See “Restoring Competitiveness of Washington Agriculture” by Dr. Desmond O’Rourke, Belrose Inc., October, 2004 and “Consolidation and Change in the Washington Agri-Food Complex” by Robert Chase, Chase Economics, September 1999.
The traditional comparative advantages that Washington agricultural producers have enjoyed in the past are shrinking, or are gone all together. From the 1960s to the 1980s agriculture in Washington and other western states experienced a “golden era”. Washington had abundant hydro-power and irrigation water to supply a rapidly expanding agricultural production complex centered in Eastern Washington. Water, land and energy prices were among the lowest in the U.S. In addition, research at the region’s land-grant universities was quickly adopted by local farmers and provided an immediate technological edge over competitors in other countries. Beginning in the 1980s and continuing into the 1990’s, these advantages changed significantly. Competing demands for resources, environmental protection concerns and stricter water quality regulations have led to new priorities, resulting in Washington experiencing higher costs for production inputs, in both absolute and relative terms in relation to competitors.

The bottom line result of these factors is that the value of total Washington agricultural production at the farm level went into steep decline during the mid 1990s. This decline has been the direct result of new and stronger world competition in food production. In recent years, however, the value of production has slowly returned to 1990 levels due to reasons laid out below.

**Value of Agricultural Production in Washington**

Agricultural production in Washington was $5.92 billion in 1995. It declined steadily from 1995 to 1998 and then reversed trend to show recovery up through 2004. Washington’s total production in 2004 returned to approximately the same level as in 1995 (see Figure 1). The dip in production value experienced during the late 1990’s is largely attributable to Washington agriculture’s dependence on export markets. While strong in the mid-90’s, economic troubles in Asia and increasing competition from other countries and states led to fewer external sales of Washington-grown products until markets stabilized again beginning in 2001.

**Figure 1 - Total Value of Washington Agricultural Production, 1995-2004**

($ billions)


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2 Value of production statistics for this section of the report are from the Washington Annual Statistics Bulletins for various years.
The value of production in Washington’s vegetable sector was erratic from 1995 to 2004. The peak year occurred in 2003. Much of the reason for unstable vegetable sector year-on-year growth can be attributed to the loss of potato production which has shifted to other regions, both in the U.S. and abroad.

The total value of berry crops in Washington was also on a roller coaster from 1995 to 2004. The peak year in this period was 2004; the low point in 1998. Since 2000, the trend has been decidedly up. However, Pierce County has not shared in this growth.

Statewide, specialty crops including forest products, Christmas trees, floriculture, nursery and others were in steady decline in Washington for most of the period from 1995 to 2004. This is partially explained by the decline of on-farm timber sales and other forest products output. However, within the “green industry” (nursery/greenhouse crops), there has been an upward trend in production. For example, in 1996 nursery and greenhouse crops totaled 245 million in sales. In 2004 the nursery and greenhouse sales were up by over 33 percent to almost $329 million.

The value of livestock and livestock production has also been very cyclical from 1996 to 2004. Although the state’s dairy industry is still predominantly on the west side, the number of cows here is declining. During the 2000 to 2004 period the central and eastern regions of the state have had an increase in the number of milk cows. Statewide, milk production per cow was up in 2004 and largely offset the lower number of cows. In 2004 Washington dairies had record cash receipts for milk. Cattle and calves production on a weight basis has been on a steady decline over the 1994 to 2004 period, but beef prices per pound have been sharply up at the producer level. The total value of cattle and calves production in the state has been very erratic, with 2000 showing the highest value during the 10 year period. Chickens produced for meat production in Washington have been steadily declining from 1995 to 2004. Total egg production has been in decline from 1995 to 2000 with the recent trend in egg production being relatively flat.

In the last ten years, only two agricultural sectors in Washington have distinguished themselves with strong and steady upward growth: the wine industry and nursery crop production. Pierce County has virtually no wine production but it is a major producer of nursery crops.

Number and Size of Farms in Washington

National Agricultural Statistics Service (NASS) data uses the U.S. Department of Agriculture (USDA) definitions of a farm – any agricultural operation that produces $1,000 or more in sales per year. Using that broad definition, Table 1 shows the statewide statistics for the number of farms, average farm size and total acres in farms for Washington for 1995 to 2004.

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3 The cultivation and management of ornamental and flowering plants.
4 The sales data in this paragraph is from the Washington Agricultural Statistics Annual Bulletin prepared by the Washington Agricultural Statistics Service.
Table 1 – Number, Average Size & Acreage of All Farms in Washington: 1995-2004

<table>
<thead>
<tr>
<th>Year</th>
<th>Farms (#) (^1)</th>
<th>Average Size (Acres)</th>
<th>Total Acreage (1,000 Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>38,000</td>
<td>416</td>
<td>15,800</td>
</tr>
<tr>
<td>1996</td>
<td>39,000</td>
<td>403</td>
<td>15,700</td>
</tr>
<tr>
<td>1997</td>
<td>39,000</td>
<td>403</td>
<td>15,700</td>
</tr>
<tr>
<td>1998</td>
<td>40,000</td>
<td>393</td>
<td>15,700</td>
</tr>
<tr>
<td>1999</td>
<td>38,000</td>
<td>393</td>
<td>15,700</td>
</tr>
<tr>
<td>2000</td>
<td>37,000</td>
<td>393</td>
<td>15,700</td>
</tr>
<tr>
<td>2001</td>
<td>36,500</td>
<td>422</td>
<td>15,400</td>
</tr>
<tr>
<td>2002</td>
<td>36,000</td>
<td>426</td>
<td>15,350</td>
</tr>
<tr>
<td>2003</td>
<td>35,500</td>
<td>431</td>
<td>15,300</td>
</tr>
<tr>
<td>2004</td>
<td>35,000</td>
<td>434</td>
<td>15,200</td>
</tr>
</tbody>
</table>

\(^1\) All farms = farms with $1,000 + in annual sales, or which normally have sales at this level or higher.


By this very broad definition, the estimated number of farms increased from 1995 to a peak in 1998. The number started to decline and is estimated to decline annually from 1998 through 2004. Looking over a longer span of time, the number of farms in Washington has shown a clear downward trend for most of the latter half of the twentieth century.

In the annual data for reporting the number and size of farms, NASS recently changed its classification of economic size (sales categories). This means the number and size of farms by the same size classification cannot be compared over time. The agency began reporting on the number of farms with annual sales of over $500,000 annually from 2002 to 2004. In those three years, NASS is estimating that the number of farms in this category has remained stable at 2,100 statewide. It is also estimated that the total acreage farmed by these large farms has been increasing, going from 5.59 million farmed acres in 2002 to 5.70 million in 2004. The 2004 estimate is that the average size of these large farms is 2,715 acres. The Economic Research Service of USDA estimates that 1,100 farms in Washington had annual sales of $1.0 million or more in 2003.\(^5\)

**Contraction in the Number of Food Processors**

Washington had an estimated 188 food processors as of March 2004.\(^6\) This data has not been consistently tracked year by year over the last decade. Data compiled by the Northwest Food Processors Association (NWFPA) in conjunction with the Washington Department of Community, Trade and Economic Development shows that 24 food processing plants have closed in Washington in the last ten years. These include a wide range of processor types, including fruit and vegetable packers, seafood processors, and dairy product processors. There have been partial closures and employment lay-offs at another four processing facilities. Some pre-existing

plants have been re-opened by new owners, but the industry’s major trade association has not identified any new major food processors (firms with over 50 employees) that have built new plants in Washington in the last five years. This does not include wineries, a sector in which there has been new plant construction and operations.

**Organic Crop Acreage**

Washington is a leader among states with acreage dedicated to the production of organic crops. Data on the estimated acreage for certified production for 1997 and 2004 is given in Table 2.

USDA ranked Washington second among all states in the U.S. for organic farm acreage in 2001. California had about four times more organic acreage than Washington, but Washington held a solid second position among the 50 states. The switch to organic production in Washington may be slowing down. One of the main sources for expansion of organic acreage is "transitional lands", which are lands where past non-organic cultural practices has been halted for a period of years as required to become fully certified for organic production. In 2004, Washington’s transitional acreage totaled 5.5 percent of the total certified acreage (2,234 acres of transitional land out of 40,245 certified acres). This rate of expansion via transitional acreage indicates a slowdown in adding new organic acreage to the state’s cropland and pasture base.

<table>
<thead>
<tr>
<th>Crop Type</th>
<th>Certified Acreage in 1997</th>
<th>Certified Acreage in 2004</th>
<th>Transitional Acreage in 2004</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetables</td>
<td>3,140</td>
<td>9,971</td>
<td>19</td>
</tr>
<tr>
<td>Tree Fruit</td>
<td>2,978</td>
<td>9,468</td>
<td>1,220</td>
</tr>
<tr>
<td>Forage (Hay, Silage, &amp; Pasture)</td>
<td>1,817</td>
<td>8,400</td>
<td>586</td>
</tr>
<tr>
<td>Grains &amp; Beans</td>
<td>2,027</td>
<td>5,435</td>
<td>239</td>
</tr>
<tr>
<td>Small Fruits &amp; Nuts</td>
<td>2,027</td>
<td>5,435</td>
<td>239</td>
</tr>
<tr>
<td>Herbs &amp; Mixed Horticulture</td>
<td>850</td>
<td>1,079</td>
<td>1</td>
</tr>
<tr>
<td>Other Crops &amp; Greenhouse/Nursery</td>
<td>646</td>
<td>372</td>
<td>5</td>
</tr>
<tr>
<td>Other Land</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fallow/Idle</td>
<td></td>
<td>2,562</td>
<td></td>
</tr>
<tr>
<td>Timber/Woods</td>
<td></td>
<td>430</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11,458</td>
<td>40,245</td>
<td>2,234</td>
</tr>
</tbody>
</table>


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7 Personal communication with executive management of NWFPA, July, 2005.
Pierce County Agricultural Trends

The National Agricultural Statistics Service (NASS) of USDA cooperates with the Washington Department of Agriculture to collect and report data at the county level. Published annual data is very limited on crop production for Pierce County because of disclosure problems stemming from the relatively small pool of producers in Pierce County that grow reported crops.

The U.S. Census of Agriculture, which is conducted every five years, is the only historical time series of data that tracks most descriptive indicators of change in agriculture at the county level, and is thus the primary source for the information in this report section. Where applicable, in the following paragraphs the author has noted discrepancies between what Census of Agriculture data shows and the views of key stakeholders in Pierce County.

Number of Pierce County Farms and Their Size

Table 3 below presents the Census of Agriculture data on “all farms”. This includes any farm that has sales of $1,000 or more per year. The data shows two opposing trends from 1992 to 2002: during the period from 1992 to 1997 the number of farms declined, but then from 1997 to 2002 there was a complete reversal with the number of farms significantly increasing. A plausible explanation is that the number of very small non-commercial farms rose rapidly. On-the-ground observations by farmers in Pierce County indicate the number of commercial farmers has declined significantly. The Census of Agriculture also reports that the total acreage in all farms followed the same pattern as the number of farms. Again, this is at odds with the conventional view that commercial farmland has been steadily disappearing in the County.

The Census of Agriculture reports an estimated 57,200 acres of farm land in Pierce County in 2002. This differs significantly from reports prepared using the Pierce County “CountyView” land use data system.

<table>
<thead>
<tr>
<th>Year</th>
<th>All Farms (Number)</th>
<th>All Farms Average Size (Acres)</th>
<th>Total Acreage in All Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1992</td>
<td>1,059</td>
<td>55</td>
<td>58,750</td>
</tr>
<tr>
<td>1997</td>
<td>989</td>
<td>51</td>
<td>50,868</td>
</tr>
<tr>
<td>2002</td>
<td>1,474</td>
<td>39</td>
<td>57,224</td>
</tr>
</tbody>
</table>

1 “All farms” are farms with $1,000 or more in annual sales or farms which normally have sales at this level or higher.


The average size of a farm parcel in Pierce County is trending downward. Table 4 shows Census of Agriculture data for the number of farms by acreage groups.
Table 4 – Farms by Size for All Farms in Pierce County: 1992, 1997 & 2002

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 9</td>
<td>321</td>
<td>311</td>
<td>527</td>
</tr>
<tr>
<td>10 - 49</td>
<td>483</td>
<td>435</td>
<td>662</td>
</tr>
<tr>
<td>50 - 179</td>
<td>205</td>
<td>198</td>
<td>237</td>
</tr>
<tr>
<td>180 - 499</td>
<td>37</td>
<td>36</td>
<td>38</td>
</tr>
<tr>
<td>500 - 999</td>
<td>7</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>1,000 or more</td>
<td>6</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Average Farm Size</td>
<td>55</td>
<td>51</td>
<td>39</td>
</tr>
</tbody>
</table>

Note: “All farms” are farms with $1,000 or more in annual sales, or farms which normally have sales at this level or higher.

Over the 10 year period spanning 1992 to 2002, the number of farms ranging in size from 1 to 49 acres increased significantly. The number of farms ranging in size from 50 to 499 acres also grew. However, the average size of farms in Pierce County declined from 55 acres to 30 over the ten year period in question. This trend toward land intensive agriculture favors certain types of farming. For example, greenhouse nurseries require much less land to generate the same or more revenue that a land extensive operation, such as traditional row cropping. The latter are generally more likely to be targeted for non-agricultural development.

Table 5 shows the trends in non-commercial and commercial farms in Pierce County for the five year span of 1997 to 2002. The Census of Agriculture did not report at the $20,000 level in 1992, so no data is available. The number of these non-commercial farms (using our definition of farms with less than $20,000 in annual sales) decreased from 1997 to 2002. In the 1997 to 2002 period there was a slight gain in the number of farms reporting sales of $100,000 to $249,999 but in all other categories of sales, there were fewer farms. In summary the Census data in Table 5 for 1997 to 2002 shows that the number of farms in all sales categories above $20,000 is decreasing – but quite slowly. This is counter to the general view among Pierce County observers that commercial farms of all sizes are rapidly disappearing. A possible explanation is that the Census of Agriculture does not provide information after 2002, and this could be when much of the loss of farms occurred.
Table 5– Number of Farms in Pierce County by Market Value of Agricultural Products Sold: 1992, 1997 & 2002

<table>
<thead>
<tr>
<th>Value of Sales</th>
<th>Number of Farms in 1992</th>
<th>Number of Farms in 1997</th>
<th>Number of Farms in 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0 to $19,999</td>
<td>NA</td>
<td>1,408</td>
<td>1,158</td>
</tr>
<tr>
<td>$20,000 to $39,999</td>
<td>NA</td>
<td>64</td>
<td>59</td>
</tr>
<tr>
<td>$40,000 to $99,999</td>
<td>NA</td>
<td>56</td>
<td>50</td>
</tr>
<tr>
<td>$100,000 to $249,999</td>
<td>NA</td>
<td>24</td>
<td>30</td>
</tr>
<tr>
<td>$250,000 to $499,999</td>
<td>NA</td>
<td>26</td>
<td>22</td>
</tr>
<tr>
<td>$500,000 or more</td>
<td>NA</td>
<td>38</td>
<td>36</td>
</tr>
<tr>
<td>Number of Commercial Farms</td>
<td>NA</td>
<td>208</td>
<td>197</td>
</tr>
</tbody>
</table>

1 Different sales classifications were reported in 1992 compared to 1997 and 2002. Therefore, comparable data for 1992 cannot be reported.


The trend in production by type of crop is not reported annually for Pierce County in NASS, due to the potential to disclose proprietary business information. The Census of Agriculture does report the number of farms which grow various categories of crops, but this data is not given by size of farm operator.
Table 6 shows Census of Agriculture data on the number of all farms growing various crops (which include non-commercial farms under $20,000 in sales) as well as commercial farms. The Census data appear to be contradictory to the observations of key stakeholders in Pierce County who report continuous declines in the number of commercial farmers. The information developed earlier for this study (in Task 2), provides a more accurate picture of the true number of commercial farmers in Pierce County, because it is drawn from many sources and it is validated by observations and information provided by local farmers.

<table>
<thead>
<tr>
<th>Type of Agricultural Production</th>
<th>Number of Farms in 1992</th>
<th>Number of Farms in 1997</th>
<th>Number of Farms in 2002</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vegetable Farming</td>
<td>34</td>
<td>43</td>
<td>68</td>
</tr>
<tr>
<td>Fruit Farming</td>
<td>26</td>
<td>39</td>
<td>72</td>
</tr>
<tr>
<td>Grain Farming</td>
<td>1</td>
<td>1</td>
<td>13</td>
</tr>
<tr>
<td>Greenhouse, Nursery, &amp; Floriculture Production</td>
<td>57</td>
<td>121</td>
<td>151</td>
</tr>
<tr>
<td>Other Crop Farming (Especially Hay)</td>
<td>NA</td>
<td>NA</td>
<td>107</td>
</tr>
<tr>
<td>Beef Cattle Ranching &amp; Farming</td>
<td>41</td>
<td>324</td>
<td>396</td>
</tr>
<tr>
<td>Dairy Cattle &amp; Milk Production</td>
<td>40</td>
<td>24</td>
<td>17</td>
</tr>
<tr>
<td>Hog &amp; Pig Farming</td>
<td>NA</td>
<td>25</td>
<td>24</td>
</tr>
<tr>
<td>Poultry &amp; Egg Production</td>
<td>14</td>
<td>21</td>
<td>19</td>
</tr>
<tr>
<td>Sheep &amp; Goat Farming</td>
<td>NA</td>
<td>28</td>
<td>80</td>
</tr>
</tbody>
</table>


Food Processing

Analysis conducted in Task 2 shows that Pierce County has about 20 food processors. However, many of the largest of these have little or no relation to local growers. There is no data to show the historical trend in the number and type of food processors in the County. Local growers of raspberries have commented that the closure of local berry processing facilities has been harmful. Without food processors, local growers must rely on fresh markets with no economically viable outlet for lesser grade or surplus fruit, which deprives them of an additional revenue source.

Organic Farming

The latest data on the crop and pasture land certified in the Washington State Department of Agriculture’s organic program shows that there is 137.5 acres in organic production in Pierce
County. Other certification agencies may have certified land for other growers.⁸ The WSDA certified acreage is a small fraction of the total agricultural land in Pierce County. Out of 28,890 acres in agricultural use in Pierce County, the organic acreage in the County which is certified by WSDA is less than one half of one percent.

Some non-organic growers follow sustainable practices and sell directly to their customers at farmers markets, roadside stands, and elsewhere. This allows the farmers to reach consumers who want local foods that offer an alternative to conventional products but do not necessarily choose certified organic products. Yet up to this time, the data doesn’t point to a major shift among Pierce County growers converting to organic production methods.

**Parcel Size**

The trend in average farm size is a proxy for the trend in parcel size. The Census of Agriculture shows a steadily declining average farm size in Pierce County. In 2002 the average farm size was 39 acres. This is trending downward, from 55 acres average in 1992 and 51 acres in 1997.

**Financial Performance of Farms**

The Census of Agriculture collects data on total revenues and financial returns to farmers. Pierce County data is summarized in Table 7. The Census of Agriculture reports the value of agricultural products sold and gives a snapshot of total farm income. In 1992 the estimated total value of agricultural products sold was $85.1 million. Total value dropped to $69.8 million in 1997 and it rose sharply in 2002 to $94.2 million. This shows the high variability in income over time, but an overall pattern of growth between 1992 and 2002. These estimates are in current dollars (not adjusted for inflation changes).

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Market Value of Agricultural Products Sold (Million $)</td>
<td>$85.09</td>
<td>$69.84</td>
<td>$94.17</td>
</tr>
<tr>
<td>Net Cash Return for Agricultural Sales (Million $)</td>
<td>$7.81</td>
<td>$9.50</td>
<td>$21.93</td>
</tr>
<tr>
<td>Average Cash Return per Farm</td>
<td>$7,380</td>
<td>$9,610</td>
<td>$14,840</td>
</tr>
</tbody>
</table>


---

⁸ See [http://www.ams.usda.gov/nop/CertifyingAgents/Accrdited.html](http://www.ams.usda.gov/nop/CertifyingAgents/Accrdited.html) for a list of third party organic certification agents that are accredited by USDA for the National Organic Program.
Agricultural Projections

USDA projections are a general indicator of “what to expect” based on calculations from the top agricultural economists in the federal government. The baseline forecast to 2014 is briefly highlighted here. The USDA projections focus on the eight major field crops produced in the U.S. (wheat, corn, rice, barley, oats, soybeans, cotton and sorghum) and the major livestock categories (beef, hogs and poultry). The horticultural crops category encompasses the crops of interest in Pierce County. These projections are directional trends for broad product categories.

Regarding horticultural products (including fruits and nuts, vegetables, and greenhouse and nursery products), the U.S. is projected to have consumer demand growth. The U.S. is projected to see continued strong growth in imports of horticultural products. In fact, the projection is for the U.S. to become more dependent on imports of horticultural products between now and 2014.

Tables 8, 9 and 10 show the U.S. is projected to expand production of fruits, vegetables and nursery crops to meet growing future demand. These tables also show that imports are expected to rise faster than exports and foreign products are increasingly relied upon to serve the total food and nursery crops demands of the U.S. In other words, the projection is that the U.S. will continue to import substantially more than it exports in these products. By 2014 the projection is that the U.S. will have net imports totaling $2.34 billion in non-citrus fresh and processed fruits, over $4.0 billion in net imports of vegetables, and $1.59 billion in net imports of nursery products.

The USDA projections anticipate the U.S. will continue to have a comparative disadvantage relative to other countries in the production of fruits, vegetables and nursery products over the next decade. Note that the assumptions used by USDA for all projections follow Table 12.

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Production Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-citrus Fruit</td>
<td>8,486</td>
<td>8,741</td>
<td>9,003</td>
<td>10,133</td>
<td>11,747</td>
</tr>
<tr>
<td>U.S. Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh Non-citrus Fruit</td>
<td>1,499</td>
<td>1,548</td>
<td>1,594</td>
<td>1,794</td>
<td>2,080</td>
</tr>
<tr>
<td>Processed Fruits</td>
<td>666</td>
<td>769</td>
<td>780</td>
<td>828</td>
<td>892</td>
</tr>
<tr>
<td>Fruit Juices</td>
<td>658</td>
<td>703</td>
<td>724</td>
<td>815</td>
<td>944</td>
</tr>
<tr>
<td>U.S. Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fresh &amp; Frozen Non-citrus Fruit</td>
<td>2,005</td>
<td>2,279</td>
<td>2,361</td>
<td>2,720</td>
<td>3,246</td>
</tr>
<tr>
<td>Processed Fruits</td>
<td>1,146</td>
<td>1,304</td>
<td>1,393</td>
<td>1,661</td>
<td>2,048</td>
</tr>
<tr>
<td>Fruit Juices</td>
<td>776</td>
<td>786</td>
<td>802</td>
<td>868</td>
<td>958</td>
</tr>
<tr>
<td><strong>Net Imports to U.S.</strong></td>
<td>1,154</td>
<td>1,349</td>
<td>1,458</td>
<td>1,812</td>
<td>2,336</td>
</tr>
</tbody>
</table>


---

Table 9 – Baseline Projections of U.S. Vegetable Exports & Imports, Selected Years ($ millions)

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Production Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Fresh Vegetables 
1 Includes melons and processing totals for dual-use crops. | 9,593 | 9,881 | 10,178 | 11,455 | 13,279 |
| U.S. Exports                      |       |       |       |       |       |
| Fresh Vegetables 
2 Fresh vegetables include melons but exclude fresh potatoes, sweet potatoes and fresh mushrooms. | 1.220 | 1,257 | 1,285 | 1,402 | 1,583 |
| U.S. Imports                      |       |       |       |       |       |
| Fresh or Frozen Vegetables 
2 Fresh or Frozen Vegetables | 3,319 | 3,667 | 3,977 | 4,668 | 5,613 |
| Net Imports to U.S.               | 2,099 | 2,410 | 2,692 | 3,266 | 4,030 |

1 Includes melons and processing totals for dual-use crops.
2 Fresh vegetables include melons but exclude fresh potatoes, sweet potatoes and fresh mushrooms.


Table 10 – Baseline Projections for U.S. Nursery/Greenhouse & Floriculture Exports & Imports, Selected Years ($ millions)

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Production Value</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Nursery & Greenhouse 
1 Includes floriculture crops. | 15,193 | 15,302 | 15,557 | 16,625 | 18,072 |
| U.S. Exports                      |       |       |       |       |       |
| Nursery & Greenhouse 
1 Includes floriculture crops. | 259 | 286 | 291 | 315 | 348 |
| U.S. Imports                      |       |       |       |       |       |
| Nursery & Greenhouse 
1 Includes floriculture crops. | 1,216 | 1,363 | 1,581 | 1,761 | 1,944 |
| Net Imports to U.S.               | 957   | 1,077 | 1,290 | 1,446 | 1,596 |

1 Includes floriculture crops.


Table 11 presents the projections for production and trade in beef, pork and poultry. U.S. production is expected to rise in all three categories but the greatest growth is expected in poultry. The U.S. trade conditions are expected to improve slowly for the U.S. beef industry as it gradually recovers from the health concerns over BSE and the loss of U.S. export markets, particularly Japan. The U.S. is projected to remain a net importer of beef in all future years of the projection. Pork is a strong export meat category for the U.S., with major competitive advantages in pork production in the "big" pork states in the Mid-west. The U.S. is expected to remain a net exporter of pork throughout the projection period. In poultry, the U.S. is projected to have rising domestic production with virtually no imports and rising export trade. The U.S. has competitive advantage in poultry production.
Table 11 – Baseline Projections of U.S. Beef, Pork & Poultry Production, Meat Exports & Meat Imports
Selected Years
(Million Lbs or Million Tons Carcass Wt)

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef (Million Lbs)</td>
<td>26,238</td>
<td>24,498</td>
<td>24,775</td>
<td>26,458</td>
<td>27,941</td>
</tr>
<tr>
<td>Pork (Million Lbs)</td>
<td>19,945</td>
<td>20,573</td>
<td>20,800</td>
<td>22,032</td>
<td>23,148</td>
</tr>
<tr>
<td>Chicken- Young (Million Lbs)</td>
<td>32,399</td>
<td>33,769</td>
<td>34,848</td>
<td>38,604</td>
<td>41,942</td>
</tr>
<tr>
<td>U.S. Meat Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef (Million Tons, Carcass Wt.)</td>
<td>1,143</td>
<td>201</td>
<td>281</td>
<td>412</td>
<td>828</td>
</tr>
<tr>
<td>Pork (Million Tons, Carcass Wt.)</td>
<td>779</td>
<td>944</td>
<td>960</td>
<td>1,060</td>
<td>1,200</td>
</tr>
<tr>
<td>Poultry ¹ (Mill Tons, Carcass Wt.)</td>
<td>2,435</td>
<td>2,248</td>
<td>2,479</td>
<td>2,724</td>
<td>2,926</td>
</tr>
<tr>
<td>U.S. Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beef (Million Tons, Carcass Wt.)</td>
<td>1,363</td>
<td>1,593</td>
<td>1,660</td>
<td>1,575</td>
<td>1,406</td>
</tr>
<tr>
<td>Pork (Million Tons, Carcass Wt.)</td>
<td>567</td>
<td>513</td>
<td>551</td>
<td>600</td>
<td>655</td>
</tr>
<tr>
<td>Poultry ¹ (Mill. Tons, Carcass Wt.)</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
<td>Nil</td>
</tr>
<tr>
<td>Net Imports to U.S. -- Beef (Mill. Tons)</td>
<td>220</td>
<td>1,392</td>
<td>1,379</td>
<td>1,163</td>
<td>578</td>
</tr>
<tr>
<td>Net Exports from U.S. – Pork (Mill. T.)</td>
<td>212</td>
<td>431</td>
<td>409</td>
<td>460</td>
<td>545</td>
</tr>
<tr>
<td>Net Exports from U.S. – Poultry ¹ (M.T.)</td>
<td>2,435</td>
<td>2,248</td>
<td>2,479</td>
<td>2,724</td>
<td>2,926</td>
</tr>
</tbody>
</table>

¹ Poultry includes broiler chickens and turkeys only.

Table 12 gives baseline projections for egg and milk production and trade projections for eggs. Production of both food categories will rise to meet greater total demand in the future. The U.S. is a net exporter of eggs, and this is a trend that is expected to strengthen as the projection period moves forward. The U.S. has large and highly efficient egg production operations, which gives rise to the competitive advantage in this product sector.
Table 12— Baseline Projections of Other Livestock Products
Production & Exports
Selected Years
(Million Dozen or Billion Lbs)

<table>
<thead>
<tr>
<th>Item</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2009</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egg (Million Doz.)</td>
<td>7,273</td>
<td>7,399</td>
<td>7,495</td>
<td>7,877</td>
<td>8,361</td>
</tr>
<tr>
<td>Milk (Billion Lbs)</td>
<td>170.1</td>
<td>173.7</td>
<td>176.4</td>
<td>186.4</td>
<td>195.2</td>
</tr>
<tr>
<td>U.S. Exports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egg (Million Doz.)</td>
<td>146</td>
<td>141</td>
<td>160</td>
<td>172</td>
<td>187</td>
</tr>
<tr>
<td>U.S. Imports</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Egg (Million Doz.)</td>
<td>13</td>
<td>14</td>
<td>14</td>
<td>14</td>
<td>14</td>
</tr>
<tr>
<td>Net Exports from U.S. – Egg (Mill Doz.)</td>
<td>133</td>
<td>127</td>
<td>146</td>
<td>158</td>
<td>173</td>
</tr>
</tbody>
</table>


Economic assumptions underpin the USDA forecast and are crucial to the forecast outcome. The main assumptions are:

1. **Economic growth**: World economic growth is projected to strengthen from the slow growth of 2001-03, averaging over 3 percent through 2014. The baseline assumes that growth in the U.S. gross domestic product (GDP) slows from the high recovery rate in 2004, and moves toward a sustainable long run rate near 3 percent. Strong economic growth in developing countries of more than 5 percent annually is projected for 2006-14.

2. **Population**: Growth in global population is assumed to slow in the baseline, from an annual rate of 1.7 percent in the 1980s to an average of 1.1 percent over the projection period, with world population increasing by some 700 million between 2004 and 2014. Although slowing, population growth rates in developing countries remain above those in the rest of the world. As a consequence, the share of world population accounted for by developing countries increases from 80 percent in 2004 to 82 percent by 2014.

3. **The value of the U.S. dollar**: Continuing depreciation of the U.S. dollar is assumed through 2006. However, the dollar is projected to appreciate again starting in 2007. The strengthening of the U.S. dollar assumes that capital moves into the United States to take advantage of well-functioning financial markets and high expected long-term productivity growth.

4. **Oil prices**: From 2006 to 2009, real oil prices are projected to fall as supply and demand adjust to recent high prices and move the market to a more sustainable long-term balance. In subsequent years, crude oil prices are projected to rise slightly faster than the general inflation rate, as new oil discoveries as well as new technologies for extracting and refining oil allow for substantial demand growth with moderate energy price increases.

5. **U.S. agricultural policy**: The Farm Security and Rural Investment Act of 2002 (Farm Act) is assumed to continue through the projections period. The area enrolled in the
Conservation Reserve Program (CRP) is assumed to rise to 39.2 million acres from about 35 million acres currently.

6. **Beef trade:** The baseline assumes a gradual rebuilding of U.S. beef exports to Japan, reflecting the October 2004 U.S.-Japan beef trade framework agreement that will permit the resumption of beef trade between the two countries. A gradual recovery in U.S. beef exports to South Korea is also assumed. The projection also assumes that imports from Canada resume for slaughter cattle under 30 months of age and feeder cattle is assumed to begin in 2006.

7. **International policy:** The projections assume that all countries fully comply with all existing bilateral and multilateral agreements affecting agriculture and agricultural trade. The baseline incorporates effects of trade agreements and domestic policy reforms in place in November 2004, but does not incorporate any effects of agreements not formally ratified by that date. Domestic agricultural and trade policies in individual foreign countries are assumed to continue to evolve along their current path, based on the consensus judgment of USDA’s regional and commodity analysts. In particular, economic and trade reform underway in many developing countries is assumed to continue.

The assumptions used in the USDA projections are largely “status quo” conditions. For example, energy price increases should moderate over most of the forecast period, trade policies do not vary from existing trade agreements, and economic growth is robust in the developing countries. If any of these conditions vary, trends may diverge from projections.

**Other Research and Analysis**

The future of Pierce County agriculture can also be viewed through the forward looking analysis and writings of economists and others.

**Farming Food Chain**

One of the most thought-provoking and challenging observers is Steven Blank, an extension economist at the University of California-Davis. Dr. Blank writes about the threats to American agriculture due to the constant squeeze on farm profits where the prices of food commodities and products are set in global trade while production costs are locally derived.\(^\text{10}\) In his analysis, agriculture in the U.S. has constantly moved up the “farming food chain” from low value annual crops such as grains to higher value crops. The fourth stage (highest) in this typology is high-value perennial crops. The farmers are responding to the lack of profitability in lower value crops, but they must also accept more risk when they move to perennial crops such as raspberries which have high capital and operating costs for planting, trellising and plant care, while the first crop comes several years after planting. Because of the long lag between planting and when harvests occur, and the many years of production once perennial crops begin bearing, expected profit levels may not be achieved. Indeed, farmers often remain in production when prices are low due to the fixed nature of their investment.

\(^{10}\) See *A Portfolio of Threats to American Agriculture* by Steven C. Blank, in Contemporary Economic Policy, Volume 20, No. 4, October 2002, pages 381-393. Much of the discussion here of Dr. Blank’s views are from this article.
Dr. Blank also dismisses the view that only the most efficient farmers remain in agriculture. He believes that being efficient is not sufficient, and that being profitable and meeting the prices of all direct competitors is still not enough. Farmers must also accept agriculture’s low returns on investment for long-run survival.

In the case of a highly urbanizing area, many farmers are especially challenged. They often face a profit squeeze from their annual operations while they realize no current income from their land asset. Furthermore, by selling their farmland they can leave the risks and low returns that often occur due to year-to-year fluctuations in both prices and their farm production.

Non-Economic Value of Farming

Economists and others also discuss the “public goods” nature of farmlands. These amenity-based services such as preserving open space, maintaining a rural lifestyle, or protecting groundwater are in addition to the market-based benefits of producing the food for consumption and supporting local farmers. These public goods are largely outside of the market, as anyone who wishes to enjoy these can do so without direct payment.

Agricultural lands near urban areas often have heightened attention given to their amenity value since other residents are in close proximity and have direct access. Also, as the amount of agricultural land becomes scarcer, there is more amenity value generated by the remaining land.

Dr. B. Delworth Gardner has outlined a framework for economic analysis of agricultural land preservation. He argues that if production of food is the only goal and markets are competitive, then the market alone can optimally allocate agricultural land. However, Dr. Gardner acknowledges that agricultural land often produces joint products (i.e. food and other amenities) with no market price for the amenity products. In that case, the market for land does not result in an optimal allocation of the land resources. He cites four joint products from agricultural land: 1) sufficient food and fiber to meet the nutritional requirements of a growing national and world population; 2) local economic benefits that derive from a viable agricultural industry, 3) open space and other environmental amenities that accrue chiefly to urban residents; and 4) more efficient, orderly and fiscally sound urban development. In this case, intervention in the land market is warranted.

Farming on the Urban Edge

USDA research on agriculture on the urban fringe reveals that conditions facing farmers in Pierce County are not unique in many respects. For example, the USDA analysis reported on research which found: “Farms in metro areas are generally smaller, produce more per acre, have more diverse enterprises, and are more focused on high-value production than non-metro farms.”

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11 What Are Farmland Amenities Worth? by Elena G. Irwin, Cynthia J. Nickerson and Larry Libby, Department of Agricultural, Environmental and Development Economics, Ohio State University, unpublished and undated paper.
13 Ibid., p. 1028-1029.
15 Ibid., p. 40.
This report goes on to explain that “Metro agriculture is characterized by a relatively large group of recreational farmers who are availing themselves of opportunities in both farm and non-farm pursuits, a smaller group of more adaptive farmers who have accommodated their farming operation to an urban environment, and a residual group of more traditional farmers who are trying to survive in the face of urbanization.”¹⁶

The USDA researchers adapted definitions on metro farms from a 1992 study.¹⁷ These are:

- **Recreational farms** are defined as farms with sales of less than $10,000 in 1997 constant dollars. USDA reports that these farms are very small and have little ability to generate income for the farm family. Income from off-farm sources is common across farms, but it makes up a large portion of total income for these farm households.

- **Adaptive farms** are those which produce relatively high-value products with sales of $10,000 or more and have sales of more than $500 per acre. By specializing in high-value products, these farms adjust to increasing land prices, population density and continuing conversion of local agricultural land to non-farm use.

- **Traditional farms** are all other farms, but these include farms with sales greater than $500 per acre if they did not have high-value specializations. USDA reports that traditional farms are most likely to remain in non-metro counties, where there is less competition for land and labor and fewer off-farm job opportunities.

### Concluding and Summary Points

Over the past decade much of agriculture in Washington State has experienced an economic downturn due to the loss of competitiveness with other production areas. This is due in part to the increased cost of production in Washington relative to competitors. At the same time, farm prices have been under pressure due to expanded supply from new producers in other countries. By 2004, Washington agriculture was returning to the revenue levels earned by farmers ten years earlier. It is clear that the state’s farmers and food processors have faced significant financial challenges.

National projections by USDA suggest current trends will continue, with imports taking an ever-larger share of total U.S. market for fruits and vegetables. This projection is based on the continuance of current conditions, such as “manageable” energy prices. If the assumptions change, so do the projections. Even if the national projection holds, this does not mean that Pierce County cannot counter this overall trend. However, it does show that recent past trends are projected to continue into the future for agriculture, and that USDA expects the overall competitiveness of U.S. agriculture will further erode in the next decade.

Research discussed above confirms that agriculture in Pierce County and other urban areas faces greater challenges than growers who are located in more rural production areas.

The following summary points are most relevant regarding the recent performance and conditions in Pierce County agriculture:

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¹⁶ Ibid., p. 40.
• Agriculture is in a downward trend in the number of commercial farms and acreage. Analysis shows there are many small, non-commercial (under $20,000 in annual sales) operators in the County and most have a “farm” as defined by the Census of Agriculture by virtue of having a small number of livestock. The “all farms” data estimated in the Census of Agriculture shows that the number of farms in Pierce County increased from 1997 to 2002.

• Using the decreasing average farm size as the indicator, it appears that parcel size is decreasing for Pierce County farmers. This means to secure greater income and profit they must expand production per acre, or they must be a part-time farmers. Another option is to start value-added processing or distribution operations to complement their farming operations.

• Nursery and greenhouse plant production has been the most sustained growth sector in agriculture in Pierce County. More commercial farms are entering nursery production over time, the opposite trend for most food categories of agriculture.

• Many key stakeholders have reported that small farms selling directly to consumers represent an important trend for the future of Pierce County agriculture.

• There are still relatively few organic farmers in Pierce County. The trend of organic agriculture is growing but not at a pace that would replace the loss of traditional farmers.

• The latest Census of Agriculture was conducted in 2002. Many key stakeholders interviewed in this analysis believe there has been an acceleration in the loss of agricultural lands in Pierce County agriculture since that time.

Two factors stand out on which much of Pierce County’s future agricultural economic viability rests. More residents in the Greater Puget Sound will need to view farms as a true “public good” which they are willing to support. The best form of support is consumer willingness to pay a premium price for local foods. A second condition that is more directly important for Pierce County citizens and their government is the enactment of programs to preserve farmland and directly encourage and protect the farmers who do wish to grow and market food crops within the County.
January 11, 2006 (Revised)

To: Rob Allen, Pierce County Economic Development Division

From: Barney & Worth, Inc. and Globalwise, Inc.

Subject: Pierce County Agriculture Strategic Plan:
Task 5 – Policies and Regulations Impacting Competitiveness

Many local, state and national policies and regulations have some bearing, negative or positive, on the viability of Pierce County Agriculture. This memorandum focuses on how government is influencing local agriculture, and on those policies and regulations that have the most significant impact on competitiveness for a range of agriculture operations in Pierce County. The scope of the analysis concentrates on policies and regulations that can be addressed locally. Several additional considerations influenced the selection of policies and regulations for analysis:

- Was the topic a key issue or theme raised in surveys of the farm community?
- Does the policy or regulatory challenge have a practical solution?
- Will a change in policy or regulation lead to meaningful improvement?

Information and observations produced here were gleaned through a variety of research methods, including: interviews with farmers, regulators and industry observers; a survey of the local agriculture community; a review of findings from a series of Regulatory and Joint Task Force meetings sponsored by the Pierce County Farm Advisory Commission, Friends of Family farmers, Pierce County Conservation District and American Farmland Trust in 2003; and a review of various codes, rules and regulations.

Categories of policies and regulations examined here include:

- Land use: planning, zoning, development
- Public and environmental health
- Tax structure
- Transportation

The following sections describe key findings, along with an analysis of local land use policies and regulations and their consequences for local agriculture. The analysis is accompanied by a summary table outlining additional policies and regulations with significant implications for farming.

**KEY FINDINGS**

- More important than any single regulatory issue is the need to have a regulatory review mechanism. Not only are the range and types of regulations farmers face increasing, but many farmers are driven to try new product lines and encountering regulations they had not previously encountered. An ombudsman position could help with this, as could additional farm business, technical and marketing training.
The permitting process, whether for a storage structure, farm stand or other ancillary use, can be lengthy, confusing and expensive for an individual farmer. A streamlined process for agriculture-related uses may help reduce confusion and expedite activities needed to ensure continued viability.

Historic land use policies have led to farmland fragmentation. Continued fragmentation of traditional farmlands has reduced farm acreage, led to increased complaints and otherwise restricted normal farm operations for many Pierce farmers. Right-to-Farm policies are a step in the right direction, but do not solve the problem faced by farmers increasingly surrounded by non-compatible development.

A variety of other policies and regulations, when taken in combination, make farming in Pierce County a daunting challenge. A steady stream of new or altered regulations intended to protect public and environmental health and safety often lead to additional mitigation expenses for farmers already struggling to stay afloat.

LAND USE

Land use policies have significant effects on both the financial and physical viability of agriculture. Carefully-crafted land protection measures are important to help preserve land for future agricultural use. On the other hand, these measures – designed to help – can also be seen as hindering farmers, limiting their ability to sell their land or convert it to other uses. Similarly, rules, regulations and permit requirements put in place to protect the “greater good” can have negative consequences, sometimes unintended, for farmers. The next sections outline some of the permitting and zoning issues raised in discussions with farm operators, regulators and other observers. This review covers existing policies and regulations, and also discusses opportunities for policies that do not currently exist but that might benefit future agricultural viability.

Permitting and Development Regulations

FARM BUSINESS PERMIT REQUIREMENTS

Research indicates that the economic viability of farming, at least for some urban edge farmers, will become increasingly tied to the operator’s ability to grow and sell products locally. One popular vehicle for doing this is vendor-direct sales, also known as “farm stands.” Other examples, such as corn mazes, u-pick pumpkin patches, country bed and breakfasts, fall under the heading of “agri-tourism.” Several examples of successful farm stands and agri-tourism exist in Pierce County. However, expansion or new development of these income supplementing activities can be challenging due to a combination of permit requirements. For example, if a Pierce County farmer decides to open a farm stand on-site, they must:

- Secure a building permit, sometimes requiring engineered plans.
- Provide ample off-road parking (reducing land available for production).
- Comply with traffic safety requirements along major arterials or highways.
- Sell only a limited amount of foods grown or processed off-farm (limits are based on farm size).
- Limit signage and advertising, per requirements designed for other commercial businesses.
- Develop a sanitary sewage system located away from wells; provide temporary hand washing facilities.
- Ensure all building materials are fire retardant.
These are just a few of the requirements associated with development and operation of an on-farm business, even if temporary or seasonal. The complexity increases as farm business operations intensify. As an exercise, the consultant team attempted to establish a hypothetical, multi-faceted farm business operation, including a temporary produce stand, corn maze and u-pick pumpkin patch. In a series of phone calls directed to a variety of sources, including fire, planning and code enforcement. In some cases, we were told to check back with the same entity that had referred us to that office. In the end, we were unable to definitively identify specific permit and other regulatory requirements for establishing our hypothetical business. The results of our efforts do suggest that review and permission is required from a wide array of regulatory bodies, including Pierce County code enforcement, planning, health and fire agencies and that, at least in some cases, to maintain operations for the entire growing season, the hypothetical farm would be required to renew permits and re-pay application and inspection fees several times annually.

Some Pierce County farmers have relayed that they have been required by the County to erect farm storage buildings per commercial standards, even if no public access was planned. In several cases, farmers report the local permitting process took over a year to navigate. Others report not knowing whether they were in/out of compliance with certain regulations, or not knowing if regulations exist.

The preceding examples provide anecdotal evidence that local permitting requirements can be difficult to understand, expensive and time consuming. This is a particularly significant obstacle for farmers operating on a very slim profit margin. An on-going review of code requirements may be necessary to identify specific improvements, reduce confusion and eliminate unnecessary obstacles. This effort might also need to be supplemented with an outreach and education program or ombudsman services to help farmers comply with important public policy objectives. Snohomish County has addressed similar challenges by assigning one planner to process all farm-based permit applications, regardless of the location of the farm.

CRITICAL AREAS ORDINANCE BUFFER REQUIREMENTS

The Washington State Department of Community, Trade and Economic Development (CTED) recently published a model critical areas ordinance suggesting buffers of 200-feet or more around critical areas including waterways and wetlands. Observers have noted that if Pierce County were to adopt these or more stringent buffer setbacks and apply them to agricultural sites, it could be removing still more farmland from production. The possible impacts of buffer requirements were outlined by the Washington Farm Bureau in its 2005 Policy Agenda. According to the Farm Bureau, a 200-foot buffer applied to 2.5 miles of river frontage farmland would effectively remove 60.6 acres from production. Assuming the farmland removed from production was used to grow corn, this would equate to a loss of 606 tons of corn production and $41,662.50 in gross farm revenue.

Our research indicates that Pierce County did adopt the State’s recommendations for waterway setbacks, but also included special exemptions for crop production within buffer areas. However, various sources cite conflicting setback requirements. While there may indeed be relief for farmers who produce crops in critical areas, it was not possible for us to confirm the specifics. Some additional clarification and publicity of these exceptions could improve farmer understanding and compliance.
Zoning

FARMLAND PROTECTION AND PRESERVATION

A significant threat to agriculture in Pierce County is the disappearance of agricultural land, whether through conversion to non-farm uses and development or via fragmentation, whereby remaining agricultural lands are encroached upon by incompatible uses.

With respect to conversion to non-farm use, Pierce County has undergone significant transformation over the last fifty years. The accompanying figures show the “Progression of the Built Environment” in Pierce County from pre-1950 to present. By highlighting improved parcels (i.e. parcels with structures), and displaying change in ten-year increments, it is easy to see the increasing scope of development across Pierce County. (NOTE: The figures illustrate developed parcels -- useful as a proxy to show development patterns. However, this designation doesn’t mean an entire parcel has been developed. For example, a 20-acre parcel with only one home would be shown as “built” in its entirety, even if most of the land is still used for agricultural production.)

The second key issue, fragmentation, is an offshoot of agricultural land conversion. However, it carries its own set of challenges for agricultural viability. Many farmers worry their operational capabilities will be impaired as other, non-compatible development encroaches into the farm community. Residential neighbors may complain about burning, spraying, manure application, the use of County roads to transport farm equipment, and other normal operations. Fragmentation has financial consequences, too, as encroaching development leads to rising land value and taxes (via land value and through Local Improvement District assessments, etc.). Fragmented farmland is also more susceptible to conversion due to its proximity to other development.

Development pressure has affected Pierce County farmland for decades, and will likely continue for years to come. Farmland protection measures most likely would have been more effective if implemented a quarter century ago, before the surge in Pierce County development. Nonetheless, Pierce County has taken several recent and important steps to preserve agricultural land and reduce fragmentation, or at least some of the effects of fragmentation. Key efforts are discussed below.

Right to Farm Protections

In 2002, Pierce County adopted Right to Farm Protections, as described in Chapter 18I.35 of the Pierce County Code. The Right to Farm Protections were designed to safeguard agriculture from “residential and commercial development adjacent to agricultural property and agricultural operations (that) may lead to restrictions on agriculture and agricultural operations to the detriment of other agricultural uses, and cause diminished economic viability of agricultural industry in Pierce County.”

The Right to Farm Protections include a method for notifying property owners within 2,500 feet of an agricultural operation that farm activities occur in the area and are encouraged and protected. While this may offer a measure of protection for farmers by insulating them from some nuisance complaints, it does not afford relief from some practical realities. The Right to Farm Protections do not protect farmers from litigation by neighbors, and some farmers report the pressure of being a “good neighbor” has caused them to curtail certain farm activities.

ARL Zoning

In compliance with Washington State Growth Management Act (GMA) requirements, Pierce County recently adopted new land use classifications intended to preserve resource lands including lands of
“long-term agricultural significance.” Parcels zoned ARL, or Agricultural Resource Land, are typically 5 acres or larger in size, possess high quality soils, are primarily dedicated to commercial agricultural production and not adjacent to lots less than one acre in size. This new zoning approach has been perceived positively and negatively in the agriculture community.

Pros:

- Offers a measure of protection for large, contiguous tracts of agriculturally viable land
- Allows for ancillary farm activities such as storage and processing

Cons:

- Prevents land owner from selling land at perceived “full market price”
- Preserves farmland, but does not ensure parcels will remain actively farmed or productive
- Does not protect land that is currently in agricultural use, but not designated ARL

Opportunities:

- ARL zoning could be more effective if accompanied by a Purchase or Transfer of Development Rights (PDR, TDR) Program whereby retiring farmers recover “full / fair value” for their land, without selling for non-agricultural uses.

- A voluntary agricultural zoning option, such as that being explored in the Graham Community Plan, could offer some additional measure of protection for lands not categorized ARL because of their soil type, but otherwise suitable for farming. This could be particularly useful in R-10 zones, where permitted uses include homes, daycare centers and other uses that are incompatible with farming. Under current Growth Management Act rules, this land is otherwise destined for development.

- Some observers also suggest Pierce County conduct a careful review of agricultural lands to determine if some lands designated ARL are appropriately labeled, and if other lands that should have been preserved through ARL (especially smaller but productive parcels) were omitted.

LAND USE STATUS AND POTENTIAL IMPLICATIONS

Using records provided by the Pierce County Assessor’s Office, six individual agricultural areas were identified in an earlier quantitative and qualitative assessment of Pierce County agriculture. These six agricultural areas include: Puyallup Valley; Anderson Island/Nisqually Delta; Bonnie Lake-Buckley Plateau/Carbonado; Central County; Peninsula; and Roy/Eatonville (see Figure 8).

The earlier analysis reported in Task 2 concluded that approximately 28,890 acres of Pierce County were currently in agricultural use, while approximately 47,880 acres were actually characterized as agriculture. Of the 47,880 acres designated for agricultural use, approximately 1,400 acres were already within City boundaries, with another 989 acres located within a designated Urban Growth Area (UGA). Under the Growth Management Act, all of this acreage is destined for future development. It is especially

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1 A complete description of agricultural lands, for purposes of Right to Farm policies, can be found in Pierce County Code, Chapter 18I.30.020. Agricultural Resource Land is defined in the Pierce County Code at 19A.30.070.
significant that most of this land which will be lost to urban development – 1,633 acres – is located in the Puyallup Valley. This represents 25% of the Puyallup Valley’s current agricultural area.

Table 1 below shows the geographic distribution of agricultural land, by agricultural area and land classification.

<table>
<thead>
<tr>
<th>Agricultural Area</th>
<th>Incorporated Acres</th>
<th>Incorporate %</th>
<th>UGA Acres</th>
<th>UGA %</th>
<th>Rural Acres</th>
<th>Rural %</th>
<th>Total Acres</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anderson Island/Nisqually</td>
<td>-</td>
<td>0.0%</td>
<td>-</td>
<td>0.0%</td>
<td>1,787.3</td>
<td>3.7%</td>
<td>1,787.3</td>
<td></td>
</tr>
<tr>
<td>Bonney Lake/Buckley</td>
<td>111.6</td>
<td>0.2%</td>
<td>68.6</td>
<td>0.1%</td>
<td>7,110.0</td>
<td>14.8%</td>
<td>7,290.3</td>
<td></td>
</tr>
<tr>
<td>Central County</td>
<td>10.8</td>
<td>0.0%</td>
<td>411.1</td>
<td>0.9%</td>
<td>6,896.3</td>
<td>14.4%</td>
<td>7,318.2</td>
<td></td>
</tr>
<tr>
<td>Peninsula</td>
<td>-</td>
<td>0.0%</td>
<td>11.4</td>
<td>0.0%</td>
<td>5,143.9</td>
<td>10.7%</td>
<td>5,155.4</td>
<td></td>
</tr>
<tr>
<td>Puyallup Valley</td>
<td>1,242.6</td>
<td>2.6%</td>
<td>390.6</td>
<td>0.8%</td>
<td>4,972.6</td>
<td>10.4%</td>
<td>6,605.8</td>
<td></td>
</tr>
<tr>
<td>Roy/Eatonville</td>
<td>52.5</td>
<td>0.1%</td>
<td>107.3</td>
<td>0.2%</td>
<td>19,563.2</td>
<td>40.9%</td>
<td>19,723.0</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>1,417.5</td>
<td>NA</td>
<td>989.0</td>
<td>NA</td>
<td>45,473.4</td>
<td>NA</td>
<td>47,880.0</td>
<td></td>
</tr>
</tbody>
</table>
OTHER POLICIES AND REGULATIONS

Many additional policies and regulations are of interest to Pierce County farmers, industry observers and other agriculture stakeholders. Those mentioned most often in focus groups, surveys and interviews are summarized in the table below.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Concern, Issue or Need</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drainage Ditch Maintenance</td>
<td>Current rules constrain farmers from properly draining fields. As a result, they may have to shorten their growing season and/or remove land from production. Coordination is also an issue: Pierce Conservation District, Pierce County, and WDOE all have jurisdiction.</td>
</tr>
<tr>
<td>Dust and Smoke Restrictions</td>
<td>Farmers are subject to dust and smoke regulations despite Right to Farm protections. Puget Sound Clean Air Authority not subject to County Code.</td>
</tr>
<tr>
<td>Meat and Egg Food Safety Regulations at Market</td>
<td>Pierce County health codes (County jurisdiction specific to consumer food safety) limit the ability of farmers to sell meat and eggs at farmers markets. This restriction does not apply in other counties.</td>
</tr>
<tr>
<td>Water Systems</td>
<td>Multiple check valves are required for farm water supply lines; multiple permits are required for multiple water supply lines on same farm parcel.</td>
</tr>
<tr>
<td>Surface Water Management</td>
<td>Farmers are subject to surface water management fees designed to offset costs of urban development. Dairies are required to have nutrient management plans, and extensive stormwater controls. Increasing levels of impervious surface from the highlands add to flooding for lowland farmers. Washington Department of Ecology, Pierce County and Pierce County Extension all have at least some jurisdiction.</td>
</tr>
<tr>
<td>Water Rights</td>
<td>Farmers lack assistance for purchase, preservation or transfer or water rights. Grant County, for instance, operates a program designed to help farmers assemble, purchase or trade water rights to ensure ample quantity throughout the year.</td>
</tr>
<tr>
<td>Topic</td>
<td>Concern, Issue or Need</td>
</tr>
<tr>
<td>--------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Current Use Program</td>
<td>Program has not been officially reviewed in 10 years. Questions are raised about the program’s usefulness in protecting farmland. Should the program apply to commercial agriculture only? The Pierce County Assessor-Treasurer would likely lead any review or revision of the program.</td>
</tr>
<tr>
<td>Tax on Buildings</td>
<td>Taxes on farm buildings can continue to climb, even if land is in current farm use.</td>
</tr>
<tr>
<td>Tax on Non Ag Zoned Land in Ag Use</td>
<td>Commercially, residentially and other non-ag zoned land is taxed at rates tied to the best and highest use of that land, even if used for agricultural purposes. Farmers ask if current use and valuation might be linked, reducing taxes.</td>
</tr>
<tr>
<td>Personal Property Tax</td>
<td>Farm equipment is exempt from Personal Property Tax, but requires a complicated application process. The Personal Property Tax is not the exclusive purview of the State, and Pierce County may be able to address internally.</td>
</tr>
<tr>
<td>Traffic and Routing</td>
<td>Urban traffic is funneled through prime valley agricultural areas, leading to vehicle / pedestrian conflicts, congestion, runoff, pollution, emissions, and development that is incompatible with farming. Any resolution to this issue would have to involve Pierce County Public Works and Planning Departments – under direction from County Commission/Executive – working with surrounding municipalities.</td>
</tr>
<tr>
<td>Farm Use of Public Roads</td>
<td>Farmers are subject to traffic fines for using public roads to transport farm equipment – part of “normal farm operations”. Complaints range from obstructing traffic to leaving mud on the roadway. Authority for enforcement resides with Pierce County Sheriff and/or Washington State Patrol depending on specific roadway.</td>
</tr>
</tbody>
</table>
Figure 1: Improved Parcels Prior to 1950

Progression of the Built Environment

- Agricultural Areas
- Water
- Cities
- Parcels with Existing Structures Built Before 1950
Figure 2: Improved Parcels Prior to 1960

Progression of the Built Environment

Legend:
- Green: Agricultural Areas
- Light Blue: Water
- Yellow: Cities
- Red: Parcels with Existing Structures Built Before 1960

Areas of Interest:
- Peninsula
- Puget Sound
- Donney Lake / Buckley
- Anderson Island
- Nisqually Delta
- Roy / Eatonville
- Central County
Figure 3: Improved Parcels Prior to 1970

Progression of the Built Environment

- Agricultural Areas
- Water
- Cities
- Parcels with Existing Structures Built Before 1970
Figure 4: Improved Parcels Prior to 1980

Progression of the Built Environment

- Agricultural Areas
- Water
- Cities
- Parcels with Existing Structures Built Before 1980

[Map showing improved parcels prior to 1980]
Figure 5: Improved Parcels Prior to 1990

Progression of the Built Environment

Legend:
- Green: Agricultural Areas
- Light Blue: Water
- Yellow: Cities
- Red: Parcels with Existing Structures Built Before 1990

Locations:
- Peninsula
- Puyallup Valley
- Bonney Lake / Buckley
- Anderson Is. Nisqually Delta
- Central County
- Roy / Eatonville
Figure 6: Improved Parcels Prior to 2000

Progression of the Built Environment

Legend:
- Green: Agricultural Areas
- Blue: Water
- Yellow: Cities
- Red: Existing Structures Built Before 2000
Figure 7: Improved Parcels as of 2005
January 11, 2006 (Revised)

To: Rob Allen, Pierce County Economic Development Division

From: Bruce Prenguber, Globalwise, Inc.

Subject: Pierce County Agriculture Strategic Plan: Task 6: Entry Barriers for Farmers

The Pierce County Agriculture Strategic Plan includes a summary of the most common and most significant barriers faced by new entrants to Pierce County agriculture. The resulting summary of entry barriers for farmers in Pierce County is shown as Table 1 at the end of this technical memorandum. Table 1 also presents potential solutions for overcoming the barriers. Information contained in the table was obtained through primary research including first-hand accounts offered by Pierce County farmers and others who deal with the business needs of farmers in the county. This summary is also based on an evaluation of local conditions/trends and a national review of literature on this topic.

Table 1 addresses barriers specific to individuals just beginning or considering taking up agricultural operations in Pierce County. It is difficult to identify barriers to profitable agriculture that affect “newcomers” only, and several of the barriers described below are common to longtime farmers in Pierce County as well as farmers throughout western Washington – and the rest of the U.S.

The subject of entry barriers is important because the viability of Pierce County agriculture depends – in part – on the ability of new farmers to begin operations in the County as current farmers retire or exit the industry for other reasons.

**RESEARCH HIGHLIGHTS**

Some of the primary barriers to farm entry in Pierce County include:

- **The greatest single barrier is the high price of land.** This is a concern for every farming community in the U.S. – but it is a particularly significant obstacle in Pierce County, where growth pressure has led to skyrocketing farmland prices in recent years.

- **High land prices also create other barriers: the need for greater capital and credit and succession planning to facilitate intergenerational transfers.** New farmers rely heavily on credit to become established, and Pierce County has limited agricultural lending expertise available.

- **The availability, high cost and retention of farm labor ranks high as a barrier.** Pierce farmers must compete with urban employers offering non-farm jobs that often pay more and offer greater benefits and more year-round employment.
• **Federal estate taxation can become a barrier if the taxable estate exceeds $2.0 million.** This is a major financial concern for large commercial farms and a growing problem with land costs rising so rapidly.

• **New farmers find it increasingly difficult to find suitable land for agricultural production in Pierce County.** Pierce County has less farmland available than in the past and much of what does remain is in smaller parcels near homes and commercial businesses, particularly in the valley areas.

The next sections discuss the entry barriers in more detail.

**ENTRY BARRIER DESCRIPTIONS**

**Land Prices**

Students in the WSU-Puyallup beginning farmer courses report that the high price of land is by far the most serious impediment to their plans to enter farming. The high cost of property is also discussed in many reports across the U.S. on beginning farmer programs. “Farm Link” programs are offered in many states to match retiring and beginning farmers. Assisting farmers with the transfer of high valued property is the main reason these programs have been established.

High prices for land often force many beginning farmers to rent or lease land rather than make an initial land purchase. This strategy reduces initial capital requirements, but adds uncertainty in the long run. An added problem faces farmers who want to produce organic crops when they consider leasing land. Very little certified organic crop land is in production in Pierce County. Beginning farmers who start out with land that previously produced conventional crops must use organic production techniques for three years before the land is certified as organic. During this transition period, the crops are not considered to be organically produced. Unless a grower gets a long term lease of 8 or more years, they operate with the risk that they will lose their organic land base after spending considerable development time and expense to certify the land.

**Access to Capital, Credit and Lending Expertise**

One of the first tasks beginning farmers evaluate is how much credit is required. In most cases it will be significant, even for a small farm. For example, a farmer who starts with seven acres to grow annual vegetables could easily pay $250,000 for land and farm buildings and another $50,000 for a tractor and other essential field equipment.

<table>
<thead>
<tr>
<th>Table 1: How Much to Finance? Small Farm Example (7 Acres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land &amp; buildings <em>purchase</em>: $250,000</td>
</tr>
<tr>
<td>Farm equipment:</td>
</tr>
<tr>
<td>Operating expenses:</td>
</tr>
<tr>
<td>Total</td>
</tr>
<tr>
<td>$50,000</td>
</tr>
<tr>
<td>$50,000</td>
</tr>
<tr>
<td>$350,000</td>
</tr>
</tbody>
</table>

*Leasing still requires $100,000 investment (equipment/operating expenses), plus leasing cost.

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1 Based on communications with Dr. David Muehleisen, Small Farms Program Coordinator, Research and Outreach, Entomologist, Washington State University.

Pierce County Agriculture Strategic Plan
Barney & Worth, Inc. and Globalwise, Inc.
Task 6: Entry Barriers for Farmers
In addition, the farmer will have annual operating expenses for seed, fertilizer, fuel, pest control, repair and maintenance, insurance and other costs. Total first year capital to establish and operate this hypothetical small farm would be $350,000 or more. With a land lease, initial capital costs will still be at least $100,000. The net income from this small farm would not be sufficient to support a family; off-farm earnings by family members would be needed to supplement the farm income. A larger farm of 100 acres is likely to have first year capital requirement of over $5 million just for land (if purchased), and another $200,000 or more for other capital purchases.

The Washington Legislature passed a law in 2005 that directed the Washington State Housing Finance Commission to establish a beginning farmer and rancher loan program using tax-exempt revenue bond financing. The Commission has established the initial policies and will soon solicit proposals from private lenders to administer the program. Land, buildings, equipment and related capital expenditures are eligible for the loan program. Up to $250,000 may be loaned to any individual borrower who meets defined characteristics as a “beginning” farmer. If interest is expressed by lenders, the program could be established sometime in 2006. The advantage of this program will be that the interest rate paid by farmers will be one to two percent below conventional lending rates.

One of the challenges in recent years has been that commercial agricultural lending offices have been closing in Pierce County. For example, Bank of America (BofA) closed its office in Puyallup several years ago. The BofA agricultural lending specialist who once had his permanent office in Puyallup now covers agricultural loans for all of Western Washington. Similarly, the nearest Farm Credit Services office is in Chehalis. Some community banks in Pierce County will make agricultural loans, but this is not their specialty. New farmers in Pierce County have few lending resources to give them expertise regarding local conditions and financial advice.

Farm Labor

Pierce County farmers have noted in stakeholder interviews and surveys that finding and retaining qualified workers is a problem. The Assistant Director of Government Relations for the Washington State Farm Bureau characterizes the state’s agricultural labor shortage as a “crisis”. There is a core issue of attracting workers to agriculture when other jobs in urban centers are often more appealing. Beginning farmers who need short-term labor for spring planting or harvest will be most hard-pressed by this barrier. The solution to this barrier is probably best handled by farmers working together to share workers over their busy seasons and also by seeking assistance from local workforce training agencies to improve skills and occupational standards of farm jobs.

Incomplete Support and Training Network

New farmers often face the additional barrier of not having long-time farm friends and associates to learn from or collaborate with to solve their farm-specific challenges. Farmers need to develop and exercise leadership skills to articulate and advocate their interests. This is particularly true in a rapidly urbanizing community like Pierce County where farmers are increasingly in the minority with their city neighbors who have little inherent understanding of the problems, challenges and opportunities facing farmers and livestock operators.

Organizations such as WSU and county government can play a vital role by expanding business and/or marketing training programs, and further developing leadership programs for farmers. These efforts

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2 Communication with Tia Peycheff, Director of Capital Projects, Washington State Housing Finance Commission.
3 Communication with Dan Fazio, Washington State Farm Bureau.
would be the extra boost farmers need to deal with regulatory agencies, and shape effective business plans and product promotion programs.

Inheritance Tax Law and Intergenerational Transfers

One of the best ways to assure continuity of farming is through the passage of farms from one generation to the next. Relinquishing control of decision-making by the older generation and transferring assets to the next generation requires foresight, planning and effective family communications (especially if multiple heirs are involved and have different ideas for future use of the land). This is often very difficult for families to achieve on their own and may necessitate outside mediators or facilitators who can involve family members in frank discussions that enhance long-range business planning and succession.

For medium and larger size farms, an additional barrier can be payment of estate taxes. The death of farm owners (the last to die for married couples) can trigger a large tax obligation which may force the sale of a farm and its subsequent conversion to non-agricultural use to pay the tax bill. There are two sources of estate taxes: state and federal. Washington’s new estate tax law which passed in 2005 allows for a 100 percent deduction of estate taxes for farm property and the tangible personal property used in farming. Consequently, the Washington estate tax is not due for estates which consist principally of farming.

Federal estate taxation does apply to farms. The federal tax is computed on the special-use (agricultural) value of the land, not fair market value. For federal estate tax purposes, farmland is “specially valued”. This means the executor of the estate must establish the farm property value using cash rental values on comparable farm properties divided by the effective interest rate on new Federal land bank loans. To qualify the decedent must have met “material participation” criteria for farming and the farm property must comprise certain percentages of the entire estate. Generally the estate of a decedent who was an active farmer (or was a farmer retired on Social Security) will qualify for special-use valuation if the farm property makes up at least 50 percent of their total estate. Many IRS rules and conditions govern final determination.

In 2006 estates can deduct up to $2.0 million in value from taxation. This deduction limit will increase annually to $3.5 million in 2009. For Pierce County farms with real and personal property in special-use value of more than $2.0 million, federal estate taxes can hinder the ability to pass a farm on to heirs without triggering a large estate tax obligation. An added uncertainty is that the federal estate tax rate schedule, which establishes ever higher deduction, “sunset” in 2010, with the estate tax rates set to revert to the higher tax levels that were in effect in 2001. A mitigating factor is that farm estates are allowed to pay the federal estate taxes over 15 years.

Nationwide, it is estimated by USDA that between 3.5 to 4 percent of farm estates in 2005 will pay the federal estate tax. The median amount paid is estimated to be $660,000. In Pierce County, which has a large proportion of small and medium-size farms, estate taxation is not an issue unless the farm is part of a much larger estate with non-farm property that will put the whole estate into a taxable status. For the few remaining larger farms in Pierce County, this tax is a factor that reduces the ability of the next generation to continue the farming operations.

Suitable Land

Beginning farmers make a crucial decision when they purchase or lease land. The urban growth in Pierce County has led to conversion of significant acreage from farm and livestock producing land to

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development. Farmers look for many characteristics in selecting land. Among the most important are soil properties (such as drainage capacity and depth of the topsoil layer), water availability for irrigation, elevation and grade, micro-climate, compatible adjoining land uses, road access, and field size and shape. Other factors may include the presence and condition of machine or storage sheds, and housing. While there is no definitive estimate for the amount of land that has been converted from agricultural use to development use in Pierce County, this is known to be significant in the Puyallup Valley and in the upland areas as well.

The choice of good quality land for farming or producing livestock has diminished in Pierce County. However, there is farm and pasture land currently available for beginning farmers. This barrier is becoming more important, but is not yet precluding beginning farmers from establishing new farms.
Table 1: Summary of Entry Barriers for Farmers in Pierce County

<table>
<thead>
<tr>
<th>Barrier</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High Land Prices</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Very Significant Barrier:</strong> The greatest barrier to new farmers is the rapid escalation in full market value of land in Pierce County. The high cost of land greatly impedes new farmers from ranking Pierce County as their most desirable location to start farming. Without family ties or substantial personal assets, few new farmers will look to Pierce County as a first choice location based on the high cost to establish an operation.</td>
<td>Greater emphasis on Farm Link program participation; Purchase / Transfer of Development Rights program; more protective farm use zoning; Pierce County backing / guarantee of farm and purchase loans.</td>
</tr>
<tr>
<td><strong>Access to Capital, Credit &amp; Lending Expertise</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Very Significant Barrier:</strong> Capital needs for a start-up farm are rising while returns are often less than other enterprises. Higher capital requirements mean some farmers cannot purchase the size of farm needed to achieve the desired economies of scale and attain profitability. Fewer ag lenders in Pierce County is also a problem: there is less lending/finance expertise available for new farmers. This barrier is becoming more significant because the rising price of land increases the required capital investment.</td>
<td>Consider establishing farmer technical assistance to increase access to existing lending programs such as the newly created Beginning Farmer-Rancher Loan Program in Washington.</td>
</tr>
<tr>
<td><strong>Farm Labor</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Significant Barrier:</strong> Finding and keeping farm workers is a problem for many Pierce County farmers (as well as farmers across the state and nation). Workers often view farm jobs as entry level/temporary positions to be left as soon as a higher paying job is found. This is a particularly significant problem in Pierce County where non-farm jobs are relatively plentiful and often pay more.</td>
<td>Farmers in different ag sectors could evaluate their potential to share workers “across seasons,” and work with workforce training agencies to develop skills and positions that are more appealing to workers.</td>
</tr>
<tr>
<td><strong>Local Regulatory Challenges</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Significant Barrier:</strong> Riparian habitat/waterway protection measures in place in Pierce County make it challenging to conduct ordinary cleaning of drainage ditches and require farmers to maintain greater buffers (setbacks) along waterways. Less stringent requirements in other communities make farming seem more appealing outside of Pierce County. The cost of keeping in compliance with an increasing array of these and other environmental regulations and building requirements may dissuade potential new farmers from setting up operations in Pierce County</td>
<td>Farmer involvement in regulation review and implementation is crucial. Assessment of programs in other western Washington counties could highlight the balanced approach to environmental protection, farmer-friendly regulation and “best environmental management practices” for farm operations.</td>
</tr>
<tr>
<td><strong>Incomplete Support and Training Network</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Significant Barrier:</strong> While technical resources are available for new and existing farmers, many either do not know about them or do not avail themselves of them. Many new farmers are not sure where to turn for help for technical, financial or marketing assistance.</td>
<td>Creation of a “farmbudsman” position through the County or WSU Puyallup could provide “one stop shopping” for farmers seeking assistance on technical, permitting or other important matters.</td>
</tr>
<tr>
<td><strong>Inheritance Tax Law &amp; Intergenerational Transfers</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Moderate Barrier:</strong> Intergenerational transfer is an impediment to maintaining family farms. Effective planning is a key to farm succession and transfer strategies that reduce tax burdens and enhance the long term viability of farms. For farms under $2.0 million in special valuation (agricultural value) estate taxation is not significant under current State and federal tax schedules and rules. For Pierce County farms which hold more extensive amounts of land, estate taxes can significantly disrupt succession plans.</td>
<td>Farmer technical assistance including business planning, mentoring and legal assistance or referral.</td>
</tr>
<tr>
<td><strong>Availability of Suitable Land</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Moderate Barrier:</strong> Continual conversion of agricultural land to developed uses has reduced the amount of high quality land in the parcel sizes most desirable to farm. Dense, close by residential and commercial development also hinders new farmer interest in Pierce County land.</td>
<td>Strengthen protection in ag land use zones, perhaps in conjunction with a Purchase / Transfer of Development Rights program. Review public infrastructure siting to reduce unintended negative consequences on farmers.</td>
</tr>
</tbody>
</table>
January 11, 2006 (Revised)

To: Rob Allen, Pierce County Economic Development Division

From: Clark Worth and Michele Neary

Subject: Pierce County Agriculture Strategic Plan:
Task 7: Case Studies of Peer Communities

The agriculture industry is facing numerous challenges in Pierce County and many other urban counties across the U.S. What strategies are being adopted by peer communities to protect and enhance agriculture? The consultant team, with suggestions from Pierce County staff and key stakeholders, identified a number of communities in the U.S. that are working to address similar issues to those encountered in Pierce County.

Four of these peer communities were selected for case studies:

King County, Washington
Massachusetts Farm Viability Enhancement Program
Montgomery County, Maryland Agricultural Reserve
Multnomah County, Oregon

This memorandum provides a casebook review of lessons learned through the successes (and shortcomings) of these other communities in the Pacific Northwest and across the nation.

HIGHLIGHTS

A few highlights can be drawn from the peer community case studies and other research conducted for the Pierce County Agriculture Strategic Plan:

- **The challenges of preserving and nurturing a viable agriculture sector are being confronted by communities all over the U.S.** Research reveals the existence of dozens of programs underway in every corner of the nation, designed to address the same issues that face Pierce County.

- **Peer communities report success with a wide range of approaches and activities.** Some successful programs to support agriculture have been in place for over two decades. These programs are tailored to local circumstances and preferences, and offer an array of possible models.
• **Successful peer communities rely on a multi-faceted approach to supporting agriculture.** The leading programs typically combine planning and zoning controls with other activities to preserve farmland and sustain agricultural production.

• **Farmland protection programs have evolved over the years.** Communities typically begin with a single initiative, and over time assemble a suite of complementary strategies and programs.

• **A focus for many programs is to improve the economic viability for individual farm operations.** At their core, most farms are small private enterprises. These very small businesses must achieve sustained profitability to assure their longevity. Programs in peer communities are often aimed to increase on-farm income through improved management practices, crop diversification, direct marketing and other methods.

• **Some agriculture programs also link farmland protection with environmental objectives.** Technical expertise is provided to encourage best practices for livestock management. For example, to help farmers protect streams and watersheds.

• **Programs must remain flexible.** The agricultural industry in the U.S. is constantly evolving. For agriculture, change is inevitable – it’s “business as usual” for the market-driven system that continuously shapes and reshapes the food industry and other parts of agriculture. The agriculture sector’s ongoing survival depends upon its ability to adapt. Likewise, farmland preservation programs must also remain highly flexible and adaptable to ensure their continuing relevance.

• **Successful farm preservation programs require a strong policy commitment.** Elected leaders and top managers must be fully supportive of the goals and key program elements in order for agricultural preservation programs to thrive. This ongoing policy support is crucial to sustaining adequate staff support, promotion and program funding.

The next sections provide case studies for agricultural preservation and enhancement programs in four communities in the Pacific Northwest and across the U.S. These peer communities have been selected to illustrate a range of approaches employed in the Puget Sound area and other geographic settings. Communities were selected to highlight both mature programs, and those still in their formative stages.
KING COUNTY, WASHINGTON

Program

The King County Agriculture Commission was established in 1995 to advise the King County Council and Executive on ways to enhance and promote commercial agriculture. The Agriculture Commission is counted on to provide a single voice for the agriculture community, and is asked to weigh in on County policies and decisions affecting the livelihood of local farmers. The Commission’s current work includes steps to implement the Farm and Forest Initiative, a study which identified barriers to the viability of the local agriculture sector.

King County’s agriculture programs include:

*Puget Sound Fresh.* Puget Sound Fresh encourages consumers, wholesalers, retailers and restaurant owners to seek out and purchase locally grown products. Originally created by the King County Agriculture Commission, Puget Sound Fresh led the effort to keep farmers farming and that has now expanded to Snohomish, Pierce, Kitsap and other counties. Purchasing locally grown products directly supports King County Farms, helping to maintain the agricultural economy and conserve farmland. Local farms, crops, products and markets can be accessed through a searchable database: [www.pugetsoundfresh.org](http://www.pugetsoundfresh.org)

*Farm Link.* A joint project of the Commission and the Snohomish County Agricultural Advisory Board, Farm Link helps ensure that working farms remain in agricultural production. The program is aimed to facilitate the transition of farms to the next generation. Farm Link connects people wanting to get started in agriculture with farmers and landowners who are committed to establishing the next generation of producers. Farm Link is currently managed by the Cascade Harvest Coalition, a non-profit organization which brokers resources and technical expertise necessary to achieve the program’s goals.

*Purchase of Development Rights (PDR).* King County initiated a program in 1979 to preserve farmland through a voter-approved Purchase of Development Rights (PDR). This program permanently preserves agricultural lands that could otherwise be susceptible to urban development. (King County’s PDR program is further described below.)

*Regulatory Reform.* King County’s staff works with the Agriculture Commission to identify and alleviate regulatory impediments to working farms. A recent example was their work to clarify zoning regulations for farm stands and farmers markets.

*Agricultural Drainage Assistance Program (ADAP).* This program provides technical and financial help to farmers to maintain agricultural watercourses, preserve water quality and avoid harmful effects to fish. ADAP has partnered with Washington State University to conduct a five year research project to look at the effect of ditch maintenance on water quality, riparian habitat, and sediment control. Program information, monitoring reports, and maps of agricultural watercourses are available online: [http://dnr.metrokc.gov/wlr/waterres/fnd/](http://dnr.metrokc.gov/wlr/waterres/fnd/).

*Livestock Program.* King County also supports the raising and keeping of livestock in an environmentally sound manner. Technical assistance is offered to help producers comply with the King County Livestock Management Ordinance: manure management; stream and wetland setbacks; livestock densities; and clean water diversion is provided through phone calls, farm
visits, presentations and flyers. The program also includes cost-share assistance for implementing best management practices through individual farm management plans.

Horticulture Program. King County also offers technical and cost-share assistance to encourage best management practices in horticulture operations.

Land use controls also represent an important aspect of King County’s overall effort to protect farmland. Under Washington’s Growth Management Act, King County adopted a tough “no net loss” policy that safeguards farmland located within officially designated “agriculture production districts”. As a result, urban encroachment has slowed significantly. The Agriculture Commission also plays a role in planning and zoning decisions, reviewing / commenting on zone changes, comprehensive plan amendments and other changes affecting the agricultural community.

King County’s longstanding PDR program was launched with a $50 million voter-approved bond measure. The program was designed to preserve farmland in five designated districts and on Vashon Island. The five agriculture production districts (APDs) are located in Enumclaw, Lower Green River, Upper Green River, the Sammamish River and Snoqualmie River areas. The program has been implemented in two phases:

- **Phase 1** of King County’s PDR program consisted of purchasing development rights on prime farmland totaling $50 million. There were three rounds of purchases up to 1987.
- **Phase 2** of the program (since 1987) focuses on management of the protected lands. Funding for recent purchases has come from a 1995 $1.7 million Art and Natural Resources bond measure, combined with other sources.

King County’s purchases have followed several key selection criteria. Priority is assigned based on parcel size, soil quality and drainage, history in active farming, adjacency with other protected properties, and proximity to urban areas. Applications have been sought via ads in local newspapers and the County’s website. The PDR program is well known and there is a backlog of interested property owners and suitable sites.

Results

To date, King County has spent $60 million to purchase development rights on farmland – the most invested by any Washington county. The purchases total 13,020 acres of protected farmland (13,200 including donated easements).

Most of the purchases occurred in the PDR program’s early years. Purchases since 1987 have totaled only $3.5 million. The average price paid for Priority 1 land was $8,950 per acre, ranging from $1,290 to $18,650. For Priority 2 lands, the average price was $2,620 per acre ($480 to $6,730).

Despite the success of King County’s PDR program, several problems have been identified which threaten to undermine the intended results:

- **Conversion of protected farmland to estates:** In some instances wealthy individuals have purchased the land for estates or hobby farms, not intending to keep the farmland in commercial production. In King County and elsewhere these new wealthy “farmers” have purchased preserved parcels, then constructed mansions using provisions permitting landowner dwellings. Some such parcels even receive favorable tax treatment.
• **Farms without water rights:** The original PDR deed neglected to consider the transfer of water rights. In some instances the result has left parcels of prime farmland without water.

• **Farmers and farmworkers unable to build homes:** Deed restrictions on protected farmland limit the ability to construct additional dwelling units (beyond a single landowner dwelling), sometimes making it difficult for farmers to live on their family farms or accommodate seasonal help on-site.

**Looking Ahead**

King County’s diverse initiatives to preserve farmland and retain a viable ag economy have been in place for a number of years, and comprise a robust, mature, multi-dimensional program. However, new priorities and projects are being planned by the Agriculture Commission and County staff. An important long-term priority is to obtain additional funding to purchase more development rights. Other issues on the horizon include water rights and water conservation. Future projects in King County also include:

• A bio-digester, proposed for the Enumclaw Plateau, that would convert dairy waste to marketable products – methane and compost.

• A water reclamation facility to be built in conjunction with the Brightwater wastewater treatment facility in the Sammamish Valley, serving both King and Snohomish Counties. The treatment facility would produce high quality reclaimed water for agricultural irrigation and recreation: golf courses, parks, ballfields.

**Contact**

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MASSACHUSETTS FARM VIABILITY ENHANCEMENT PROGRAM

Program

This decade-old program helps farmers keep their families on the land and stop sprawl from consuming their farms. The program focuses on farm profitability, strengthening the business skills of farmers, and encouraging diversification and environmental integrity.

Massachusetts is highly urbanized – only 2% of its residents live outside metropolitan areas. The state has been losing farmland steadily since the dawn of the 20th Century, with about 20% of the total acreage lost since 1970. By 1997, Massachusetts had only 10% of its total land area in farms (half of that in dairy and horticulture), with the nation’s third smallest average farm size – 93 acres.

The purpose of the Massachusetts Farm Viability Enhancement Program is to improve the economic bottom line and environmental practices of participating farms, through the development and implementation of “farm viability plans.” These are business plans for farms, prepared by teams of farmers and other agricultural, economic and environmental consultants. The business plans suggest ways for farmers to increase their on-farm income through improved management practices, diversification, direct marketing, value-added initiatives and agri-tourism. The plans also offer recommendations to address environmental and resource conservation concerns on participating farms.

The program is open to existing farm operations only. To become eligible, farms must be in business at least three years. Farmers who are somewhat new to agriculture, or to their farms, make up a significant percentage of the participants, nevertheless. About one-third of participants have purchased their farm operations within the past decade, and half are involved in intergenerational transfers. As an inducement to participate in the program, farmers are eligible to receive one-time grants of up to $60,000 and also benefit from free technical assistance.

In exchange, the farmers must agree to retain their land in agricultural production for five or ten years. (Additional incentives are offered for those who agree to the longer period). To date, only two of more than 200 program participants have not remained in farming.

The Massachusetts program is guided by an Advisory Committee that meets annually to review program status and recommend changes. Members include two state legislators, Farm Bureau director, two USDA representatives, four farmers and two team leaders (who are also former farmers). The Farm Viability Enhancement Program is publicized via press releases – but the news spreads largely by word-of-mouth. The program is well known within the agricultural sector, discussed at ag and planning conferences, and successful farmers help spread the word.

Results

Since the program was initiated in 1996, 294 farms have participated in the program, with business plans completed for 264 of the farms. To date, 246 of the participating farms have been protected by covenants and received grant awards.

The 246 farms that have participated in the Farm Viability Enhancement Program and the counterpart Cranberry Viability Program* have resulted in:

* The two programs have since been merged.
• A total 43,071 acres have been impacted by the Farm Viability Program:
  − 23,430 acres permanently protected through the Department’s purchase of development rights (PDR) program
  − 19,641 acres impacted (acreage leased by farms, or land already in the program, for which business plans were developed)
• Total grants paid to participant farms: $9,161,122
• Total cost of program per acre placed in protective covenant: $391/acre
• Total cost of program per acre including impacted land: $213/acre
• Nearly three-fourths of farmers in the program invest additional capital beyond the grant amount to implement business improvement strategies. The average additional investment – from USDA, banks, personal savings and other sources is more than $30,000.

On occasion, the technical advisors have saved farmers’ operating costs during just their first on-site farm visit, ultimately improving at least one participant’s bottom line by $23,000. The average increase in net revenues is $18,500 for program participants.

During FY 2004-2005, the Farm Viability Enhancement Program completed 42 farm business plans. One of these farms was a participant in the related Cranberry Viability Program. Ten were participants in the second “renewal” offering, whereby previous program participants with covenants due to expire in the next few years were given the opportunity to update their business plans and renew covenant agreements for an additional 5- or 10-year period. Forty-one farms received funding and were placed under agricultural covenants protecting 4,556 acres. The program impacted an additional 3,103 acres of leased land and protected land under participant management. FY 2005 spending was $1.7 million for grants to farms, with $200,000 spent on technical assistance costs for farm consultants and business plan writers. Funds are provided through a Massachusetts bond measure for land conservation / open space purchases.

Success of the program has also inspired creation of a new Massachusetts Forest Viability Program, offering similar services to forest producers.

Looking Ahead

The Massachusetts farm program is continuously being fine-tuned, with annual changes. “We always see holes,” reports the program coordinator.

Recent program improvements have increased maximum grant amounts and provided greater flexibility. Maximum grant amounts are now: $20,000 (5-year covenant); $50,000 (10-year covenant); $75,000 (10-year covenant for large farms – 135+ acres).

Massachusetts also recently adopted a policy to release covenants under certain circumstances: releasing a portion of the land if the remainder of the farm is placed under permanent restriction; or swapping for farmland of superior quality, if the substituted farm is placed under a 10-year covenant.

Looking ahead, the program coordinator hopes to streamline the application process for farmers. More detailed questions can then be asked after an application has been approved.

Contacts

Craig Richov, Coordinator
Pierce County Agriculture Strategic Plan
Barney & Worth, Inc. and Globalwise, Inc.
Task 7: Case Studies of Peer Communities
MONTGOMERY COUNTY, MARYLAND AGRICULTURAL RESOURCE

Program

Montgomery County, MD borders Washington, DC and encompasses some of its oldest and best-known suburbs: Chevy Chase, Bethesda and Silver Spring. Washington continued to expand as one of the nation’s fastest growing metropolitan areas throughout the 1950s, 60s, and 70s and suburban growth in Montgomery County threatened to create conflict between rapid development and the county’s traditional rural heritage and character.

Montgomery County’s response was to create what has become one of the largest and most successful farmland protection programs in America. Despite unrelenting growth pressure, rural parts of the county remain largely unchanged from earlier times. Family farms are still abundant, with diverse crop production. The other benefits of agriculture – natural, environmental and scenic – are still being enjoyed by Montgomery County residents.

The County’s first steps included adopting a planning program called the Wedges and Corridors policy (1964) which concentrated development along transportation corridors and separated developed areas with open space “greenbelts.” A 1973 measure enacted a Rural Zone with a minimum five-acre lot size. However, Montgomery County soon found these early efforts were not sufficient to deter the encroachment of suburban-scale development into agricultural areas. The county lost more than 12,000 acres of farmland in just six years (1973-1979) and concluded that a more restrictive approach was needed. In response, the County Council adopted a new master plan in 1980, creating a 93,000 acre Agricultural Reserve and limiting housing development within the reserve area to one dwelling unit per 25 acres.

This downzoning was accompanied by a newly created mechanism to compensate landowners – called a Transferable Development Rights (TDR) system. Under the TDR system, landowners retain development rights at one unit per five acres – although they can only develop their properties at one unit per 25 acres. The remaining development rights can be used elsewhere in the county (in designated areas), or may be sold at market rates.

Maryland also has state-level farmland preservation efforts. The State’s Rural Legacy Program was established in 1998 to permanently protect a wider range of resources on large, contiguous tracts of land. The program links newly protected open space with existing state, county and local park systems and with other existing protected environmental areas to create adjoining networks of ecologically important land. The Rural Legacy Program was initiated as part of Maryland’s “smart growth” legislation, which acts to preserve undeveloped land by limiting State funding for infrastructure projects to existing neighborhoods and planned growth areas. Maryland was also the first state in the nation to enact differential property tax assessment laws (1956) as a means of slowing conversion of agricultural lands for development. The State’s priority on preserving family farms clearly influences local communities’ efforts. By 1997, 21 counties had TDR and/or PDR programs, and Maryland led the nation in total acres preserved.

Results

Today, through Transfer of Development Rights and related programs, more than one-fourth of Montgomery County’s total land area (93,000 of the 317,000 total acres) has been legally protected from non-farm development. Twenty-five years after the program was initiated, more than 40,000 acres of farmland have been permanently preserved through transfer of development rights. Developers have paid some $63 million for development rights. An additional 10,000+ acres have been retained in agricultural
production through conservation easements – voluntary limits on development. By 2003, a total of 58,332 acres had been preserved – more than any other jurisdiction in the U.S. Montgomery County is well on its way toward reaching its goal of preserving 70,000 acres in the Agricultural Reserve by 2010.

<table>
<thead>
<tr>
<th>Farmland Preservation Programs</th>
<th>Total Acreage Protected (2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryland Agricultural Land Preservation Foundation (MALPF)</td>
<td>2,831</td>
</tr>
<tr>
<td>Montgomery County Agricultural Easement Program (AEP)</td>
<td>6,678</td>
</tr>
<tr>
<td>Rural Legacy Program (RLP)</td>
<td>3,386</td>
</tr>
<tr>
<td>Maryland Environmental Trust (MET), other private trusts</td>
<td>2,086</td>
</tr>
<tr>
<td>Transferable Development Rights Program (TDRs)</td>
<td>43,351</td>
</tr>
<tr>
<td>Montgomery County Legacy Open Space Program (LOS)</td>
<td>0</td>
</tr>
<tr>
<td>Conservation Reserve Enhancement Program (CREP)</td>
<td>1,903</td>
</tr>
</tbody>
</table>

Montgomery County’s TDR program, alone, isn’t enough to alter the realities of increasingly global agricultural market trends. Some local farmers have found it necessary to shift to other, more profitable crops. But the TDR program has been effective in protecting farmland and keeping farming viable, and has been popular with owners of family farms – some of which have been in operation for over 200 years.

Meanwhile, the contrast between Montgomery County and some other Washington, DC suburbs has been striking. Montgomery County has retained a thriving agriculture industry that contributes more than $250 million annually to the local economy (2003). Loudon County, VA – a nearby Washington suburb – during this same period has been the nation’s third fastest growing county. Loudon County lost more than 20,000 acres of farmland in just one ten-year period (1987 to 1997).

Looking Ahead

The goal for Montgomery County’s program is preservation of 70,000 acres in the Agricultural Reserve by 2010. The endpoint is now within reach, and there’s currently no plan beyond achieving that important policy milestone.

Some problems are under discussion, however:

- The permitting process is lengthy – it can take up to one year. Some streamlining may be possible.
- The Montgomery County program has been accused of forcing “leapfrog” development elsewhere in the DC metro area.
- Insufficient TDR receiving area capacity is a recent concern. New rules require local comprehensive plans to increase capacity in receiving areas.
Other initiatives underway to improve program functionality include: reducing minimum TDR use requirements; allowing residential uses by-right in commercial districts when TDRs used; improving the TDR tracking system; and surveying property owners as a means to spread program information.

Contacts

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Other Sources

MULTNOMAH COUNTY, OREGON

Program

Multnomah County exemplifies a loose-knit assortment of programs intended to support sustainable commercial agriculture and enhance quality of life. Multnomah County doesn’t have an agricultural preservation program per se, but rather benefits from a market basket of public, private and grassroots initiatives designed to protect and nurture local agriculture. Key elements include:

- Land use planning and zoning restrictions which lessen the pressure of urban sprawl on farmland.
- A voter approved Metro Open Spaces program that has acquired 8,130 acres of land over the past ten years.
- A Portland-Multnomah County Food Policy Council, established in conjunction with the Sustainable Development program.
- Demonstration farms, operated by non-profit organizations, that promote agricultural education and sustainable practices.
- A strong “buy-local” movement, with active farmers markets, local purchases by major institutions, and farmer-chef links in Portland, Multnomah County and across the region.

Planning & Zoning: The foundation for farmland protection in Multnomah County is provided by Oregon’s statewide land use laws, which require the Portland Metro area to establish an urban growth boundary. Urban development is contained within the UGB, and development on farmland outside the UGB is tightly restricted. The UGB must be revisited every five years, and regional planning must adhere to a hierarchy that places prime agricultural land as the very last resource lands to be considered for future UGB expansion. Over the past thirty years, the land use laws have had a profound effect in limiting urban sprawl on farmland surrounding Portland. Some productive agricultural areas have remained in active farming despite being located very near the city.

Open Space Program: Tri-County voters also approved a bond-financed program to purchase significant open space resources in Multnomah County and throughout the metro area. This regional program has purchased natural areas, farmland, forest land, trails and greenways across the region – a total of 261 sites to date – which are destined to be held for future use as parks, trails and habitat areas. A few sites may continue in agricultural use.

The region’s other assorted agricultural protection programs – some countywide, some regional, some multi-regional – are not centrally coordinated. However, the Multnomah-Portland Food Policy Council is currently acting as a clearinghouse for many related activities.

Food Policy Council: Recognizing that “food is at the core of a livable, sustainable community,” Multnomah County and the City of Portland took action in 2002 to form the Food Policy Council (FPC). The FPC’s mission is to raise the profile of community food issues among local governments, businesses and citizens. The Council’s members include farmers, planners, hunger advocates, chefs, health professionals, food industry executives, environmentalists, government agency representatives, and citizens.
The Multnomah-Portland FPC is staffed by the City of Portland’s Office of Sustainable Development, and is part of a network of state and local food policy councils receiving support from the USDA Risk Management Agency’s Community Outreach and Partnership Program. The Drake Agricultural Law Center coordinates the network, providing a mechanism for sharing and partnership among communities in this emerging field.

The Multnomah-Portland Food Policy Council works with a diverse group of businesses, nonprofit organizations and community volunteers to carry out a wide range of initiatives. Current projects are outlined below:

- **Buy local:** Multnomah County Corrections’ food service vendor and local wholesaler increased their purchases of fresh foods from local farmers during a four-month pilot project. More than $30,000 that would have otherwise left the region was redirected to “local” farms in eight Oregon counties. When Multnomah County’s food service contract came up for renewal, the Food Policy Council worked with managers to incorporate local purchasing preference and tracking requirements, institutionalizing the link with local agricultural suppliers.

- **Lents neighborhood model:** FPC convened a broad-based coalition to address the nutrition needs of one low-income neighborhood. As a first step in this pilot, the group completed a community survey and market study to identify challenges and opportunities in improving nutrition and food security for residents of the Lents neighborhood in Southeast Portland. Interviewers administered a food survey to 200 Lents residents, including Spanish and Russian speaking community members. The results revealed strong interest in eating a healthier diet including more fruits and vegetables. Seventy-nine percent (79%) of respondents said they would like to eat a healthier diet, and 62% wanted more information about health and nutrition. FPC also produced a “Lents Community Food Resource Guide” to make residents aware of fresh food options in the area: community supported agriculture (CSAs), farmers markets, community gardens, and others. Based on the research completed in 2004, FPC is convening hunger relief programs, government agencies, community partners and neighbors to collaborate on nutrition and food security initiatives in the Lents neighborhood. This process will create a blueprint for food planning in other neighborhoods. The Lents planning laid the foundation for a successful grant application to the Robert Wood Johnson Foundation.

- **Farmers markets:** These local markets may not be big contributors to the region’s economy, but they are important in removing market barriers that face new and other small producers. They also provide a low-risk opportunity for farmers to test market their products, acting much like an inexpensive trade show. The FPC is working with planners, local governments and businesses on ideas to nurture these markets – from simple site improvements at existing farmers markets, to the development of new public plazas that could hold new markets. FPC gathered input from eight farmers market organizations in the county and hosted a brownbag lunch on farmers markets’ needs. FPC also partnered with Eastbank Farmers Market in its pilot effort to accept electronic food stamp benefits.

- **Immigrant farmers:** The region has a growing number of farmers from diverse cultures including Latino, Hmong, Vietnamese and Mien. FPC and a coalition of community partners hosted two workshops on farm-direct marketing to assist these “future farmers of America” to grow their agricultural businesses. The FPC workshops were featured in a report carried by Oregon Public Broadcasting. Now, the USDA Risk Management Agency is providing $50,000 to assist these farmers, through a partnership led by Mercy Corps and Zenger Farm and OSU Extension.
• **School nutrition:** The Food Policy Council partnered with Community Food Matters to host the *Nourishing Kids and Communities* action forum, which was attended by 124 people interested in shaping the future of food and food education in schools. Attendees included parents, teachers, nutritionists, administrators, representatives from city, county and state government, and numerous community organizations. During the forum participants shared their vision for school food and food education, heard about various programs related to food and schools, and identified resources and possible next steps. The momentum generated by this forum continues:

- The Portland Public Schools (PPS) Board unanimously approved a resolution to develop a committee charged with development of a district wellness policy by July 1, 2006 so that "every decision that Portland Public Schools Nutrition Services makes about changes in meal service or menu items or additional a la carte items will be done in the context of knowledge of the changing state of children's health and the district’s responsibility to create a healthy school nutrition environment".

- PPS nutrition services also made significant changes to its cafeteria service effective at the beginning of the 2005-2006 school year including the removal of vending machines from all middle schools, an increase in the variety of lunch choices with an emphasis on fresh salads and sandwiches with whole grains.

- PPS approved a pilot program at one school, where all school food will be produced on-site and the site coordinator will have the autonomy to purchase directly from local food producers. This trial program will help inform future efforts to increase local purchasing in the district.

- Portland City Council provided $125,000 for a school food project at the “Green Thumb” site. The program is called Learning Gardens Laboratory, and it is run by Portland State University.

• **Land inventory:** At the request of FPC, in 2004 the Portland City Council passed a resolution initiating an urban agricultural inventory. The resolution directed "applicable City bureaus to conduct an inventory of city owned land that may be suitable for community gardens and other agricultural uses." FPC is reviewing the inventory findings and recommending next steps.

**Results**

There are few metrics available to track the success of the Portland-Multnomah Food Policy Council programs. Observers point instead to the general benefits derived from promoting fresh local foods:

- Fresh produce can help reduce avoidable conditions of obesity, diabetes and heart disease, which are already escalating health care costs and have a growing incidence among children.

- Giving kids the nourishment they need to learn is one of the best investments a community can make.

- Food purchases are an easy way to redirect dollars into the local economy. Food is a major budget item and the Pacific Northwest produces an abundance of the most commonly purchased food products.
• Local food reduces reliance on fossil fuels. The average fruit or vegetable travels 1,500 miles to market.

• Farmers markets transform public space by bringing people together as a community in urban neighborhoods, and enhance quality of life.

Looking Ahead

In recognition of its early progress, the Food Policy Council was recently assigned support of full-time staff. The FPC will continue to pursue a variety of initiatives that help achieve key objectives:

• Create a vibrant regional food economy.

• Preserve agricultural land outside the urban growth boundary.

• Make agriculture an integral part of the urban landscape.

More attention is being paid now to taking further steps to preserving farmland in Multnomah County and region-wide. The regional planning agency, Metro, is beginning a process to engage the agriculture community in a dialogue in advance of the next UGB expansion date (2007).

Regional, local, state and federal land use experts are also helping FPC assess how conservation easements might be used to protect farms within and at the fringe of the Urban Growth Boundary. While it is no substitute for statewide land use planning, expanding the tools for farm protection is seen as increasingly important. Another strategy being considered is creating small urban farms dotting the region. As laboratories for teaching and learning, these pockets of history would connect neighbors of all ages to both the heritage of food and the future of sustainable agriculture. FPC is currently discussing this urban farm concept with local government agencies, farming organizations and community groups.

Some farms already exist which could anchor further development of this concept, including Zenger and Luscher Farms.

_Zenger Farm_ (or Zenger Urban Agriculture Park) is a 6-acre non-profit educational farm in an urban setting near Portland’s / Multnomah County’s historic Lents neighborhood. The program includes K-12 education, immigrant market garden, community supported agriculture (operated in cooperation with 47th Avenue Farm), wetlands restoration / preservation and CSA scholarship shares for disadvantaged families.

_Luscher Farm_ is the most intact historic farm in nearby Clackamas County, combining five adjacent farms used traditionally for dairy farming and cattle breeding. The City of Lake Oswego purchased the 47.7 acre site in 1991-1999, and it is operated by City Parks & Recreation. Luscher Farm activities are established and run through partnerships with community organizations: OSU Extension Service, Clackamas Community College, local boy scout and girl scout troops, and other partners. Oregon Tilth is developing an organic education program for the Luscher Farm site. Throughout the year, hands-on activities are offered on urban farming, organic gardening, landscaping and fruit production techniques.

Another approach being considered is integrating Food Policy as an element of local comprehensive plans. For example, the Portland and Multnomah County comp plans might embrace farmers markets, a “buy local” policy integrated into food service contracts, and school nutrition policies and procedures.
Other FPC initiatives being studied for the future:

- Expanding the promotion of “buy local”, tapping the exploding consumer interest in local food sourcing.
- Continuing planning for a Portland Public Market – a large, central farmers market.
- Growing the number of public and private institutions that purchase local agriculture products, following the successful Intel/Bon Appetit model. Intel – the region’s largest employer – and its food service vendor (Bon Appetit) have partnered to purchase directly much of their food supply from local “fresh” producers.
- Increasing the FPC’s focus on how local agriculture can contribute to addressing hunger problems.
- Seeking more partnerships: such as the FPC’s efforts that unite immigrant farmers, Zenger Farm, Mercy Corps and the Office of Sustainable Development.
- Sponsoring more research and development (R&D) to develop local products and markets, in conjunction with the Food Innovation Center (a partnership between Oregon State University and the Oregon Department of Agriculture that offers technical assistance to food producers, processors and marketers), and other partners.

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Other Sources

Food Policy: At the Core of a Healthy Community, City of Portland Office of Sustainable Development, December 2004.
OTHER COMMUNITIES

Beyond the case studies outlined in earlier sections, additional case study information is available for the following communities / programs:

- Boulder County, CO Comprehensive Plan (Agriculture Goals) ³
- Carroll County, MD Agricultural Preservation Program
- Center for Farmland Preservation in Northeast Ohio
- Erie County, PA Farmland Preservation
- Iredell County, NC Voluntary Farmland Preservation Program
- King County, WA Farmland Preservation Program 1,3
- Lehigh County, PA Agricultural Security Areas
- Long Island Pine Barrens – Suffolk County, NY 2,3
- Marin County, CA Agricultural Land Trust
- Monterey Bay, CA Agricultural Land Conservancy
- Ohio Agricultural Security Area Program
- Pinelands Development Credit Bank, NJ 2
- San Juan County, WA Land Bank 1
- Skagit County, WA Farmland Legacy Program 1
- Snohomish County, WA PDR/TDR 1

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1 Case Study information available from Cascade Land Conservancy.
2 Case Study information available from Brandywine Conservancy.
January 11, 2006 (Revised)

To: Rob Allen, Pierce County Economic Development Division

From: Bruce Prenguber, Globalwise, Inc.

Subject: Pierce County Agriculture Strategic Plan:
Task 8: Benchmarks to Measure the Agriculture Sector’s Viability

As part of the Strategic Plan for Agriculture, Pierce County is interested in evaluating and establishing benchmarks to measure the agriculture sector’s performance, and the effectiveness of County policies and programs designed to help, over time. This technical memorandum presents an assessment of several metrics of performance and effectiveness.

These benchmarks were selected after examining available data / sources, consulting with Pierce County staff, reviewing input from key stakeholders, studying literature on the topic, and testing several alternatives. While other benchmarks were considered, they were not used here due to inconsistencies or perceived inaccuracies in supporting data, because they lacked an affordable or practical method of application, or simply did not measure overall agricultural viability.

BRIEF BACKGROUND ON BENCHMARKS

Within agriculture, benchmarks are commonly applied for industry comparisons as well as on-farm management purposes. In Pierce County, benchmarks can be employed to assess the aggregate performance of agriculture countywide, and provide the County a reference point to determine if local agriculture is gaining or declining in economic strength. Moreover, if Pierce County chooses to adopt and implement targeted programs to foster agriculture’s viability in the future, benchmarks may help assess whether the programs are having a positive effect.

Of course, benchmarks are only valuable if objectively derived and only truly useful (practical) if based on readily available data. Both considerations were primary factors in selecting each of the following benchmark categories:

- Agricultural Employment
- Net Farm Income
- Land in Agricultural Use (Recommended in future, but not feasible at present)

Each of these benchmark categories (with multiple benchmark options) is described in detail below. A benchmark summary is provided in Table 4, at the end of this technical memorandum.
BENCHMARK 1: AGRICULTURAL EMPLOYMENT

Pierce County agricultural employment is an excellent indicator of the industry’s performance over time. Two types of data are used to track overall agricultural employment: covered employment data and the number of establishments reporting employment (the latter, as a proxy for the number of farms and ranches operating in Pierce County).

These series are presented below to show trends from 1990 to 2004. These are particularly useful indicators because comparable data will be available in future years (from the Washington State Employment Security Department), and because the level of farm employment and number of establishments with agricultural employment gives a sense of growth or decline in agriculture.

These agricultural employment indicators become a “benchmark” when compared over time, and when compared to the same datasets in other “peer” counties. To that end, Tables 1 and 2 provide both sequential employment data for Pierce County, and for a five-County peer region consisting of King, Pierce, Skagit, Snohomish and Thurston counties. The latter benchmark would be expressed as a percentage, as show in the far right column of Tables 1 and 2.

The employment data series, Table 1, shows average annual covered employment.\(^1\) In Table 2, “establishments” are the number of reporting employers with covered agricultural employment. Agricultural employment is estimated from crop and animal agricultural production.\(^2\) The employment data is average annual employment, i.e., total monthly reported employment divided by 12.

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\(^1\) Covered employment refers to jobs in which an employer is required by law to report to the state (Washington Employment Security Department) and pay a payroll tax for unemployment benefits. In cases where sole proprietors and other self employed persons are not covered by unemployment insurance (often the case) they are not included in the dataset.

\(^2\) The classifications are from the North American Industry Classification System (NAICS) code 111 (crop production) and code 112 (animal production).
# Table 1 – Total Covered Employment in Pierce County Compared to King, Pierce, Skagit, Snohomish and Thurston Counties

<table>
<thead>
<tr>
<th>Year</th>
<th>Pierce County</th>
<th>Five County Total *</th>
<th>Pierce County as Percentage of Five County Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>1,513</td>
<td>6,848</td>
<td>22.1%</td>
</tr>
<tr>
<td>1991</td>
<td>1,401</td>
<td>6,736</td>
<td>20.8%</td>
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<tr>
<td>1992</td>
<td>1,371</td>
<td>6,770</td>
<td>20.3%</td>
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<tr>
<td>1993</td>
<td>1,292</td>
<td>6,685</td>
<td>19.3%</td>
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<td>1994</td>
<td>1,276</td>
<td>6,906</td>
<td>18.5%</td>
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<td>1995</td>
<td>1,217</td>
<td>7,217</td>
<td>16.9%</td>
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<tr>
<td>1996</td>
<td>1,202</td>
<td>7,229</td>
<td>16.6%</td>
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<tr>
<td>1997</td>
<td>1,135</td>
<td>7,390</td>
<td>15.4%</td>
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<td>1998</td>
<td>1,156</td>
<td>7,618</td>
<td>15.2%</td>
</tr>
<tr>
<td>1999</td>
<td>1,120</td>
<td>7,390</td>
<td>15.2%</td>
</tr>
<tr>
<td>2000</td>
<td>1,049</td>
<td>7,350</td>
<td>14.3%</td>
</tr>
<tr>
<td>2001</td>
<td>1,087</td>
<td>7,081</td>
<td>15.4%</td>
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<tr>
<td>2002</td>
<td>1,073</td>
<td>6,519</td>
<td>16.5%</td>
</tr>
<tr>
<td>2003</td>
<td>1,044</td>
<td>6,558</td>
<td>15.9%</td>
</tr>
<tr>
<td>2004</td>
<td>1,045</td>
<td>6,782</td>
<td>15.4%</td>
</tr>
</tbody>
</table>

* The five counties are King, Pierce, Skagit, Snohomish and Thurston.

<table>
<thead>
<tr>
<th>Year</th>
<th>Pierce County</th>
<th>Five County Total *</th>
<th>Pierce County as Percentage of Five County Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>152</td>
<td>774</td>
<td>19.6%</td>
</tr>
<tr>
<td>1991</td>
<td>154</td>
<td>807</td>
<td>19.1%</td>
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<td>1992</td>
<td>158</td>
<td>818</td>
<td>19.3%</td>
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<tr>
<td>1993</td>
<td>153</td>
<td>819</td>
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<td>1994</td>
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<td>1996</td>
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<td>1997</td>
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<td>1998</td>
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<td>688</td>
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<td>2001</td>
<td>105</td>
<td>673</td>
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<td>2002</td>
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<td>643</td>
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<tr>
<td>2003</td>
<td>96</td>
<td>597</td>
<td>16.1%</td>
</tr>
<tr>
<td>2004</td>
<td>91</td>
<td>560</td>
<td>16.3%</td>
</tr>
</tbody>
</table>

* The five counties are King, Pierce, Skagit, Snohomish and Thurston.

BENCHMARK 2: NET FARM INCOME

Net farm income is one of the best measures of financial success for agricultural production. Annual estimates of net farm income are provided annually at the county level by the Bureau of Economic Analysis (BEA), a division of the U.S. Department of Commerce. The BEA defines net farm income as the total net income from all farms, including sole proprietorships, partnerships and corporations. All estimates are in current dollars (i.e., not adjusted for inflation). These data are reported by BEA in their Regional Economic Information System (REIS), and will be available in similar format into the future.

As with “farm employment,” “net farm income” can be benchmarked by: A) comparing Pierce County only data over time; and/or B) comparing Pierce County data as a percentage of a five-county peer region over time. The latter is important as a performance indicator relative to a peer group of counties. Again, the counties included for comparison are King, Pierce, Skagit, Snohomish and Thurston. Table 3 below shows how this benchmark can be tracked as a trend-line net farm income data for the years 1990-2003.

<table>
<thead>
<tr>
<th>Year</th>
<th>Pierce County</th>
<th>Five County Total</th>
<th>Pierce County as Percentage of Five County Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1990</td>
<td>$19,698,000</td>
<td>$103,736,000</td>
<td>19.0%</td>
</tr>
<tr>
<td>1991</td>
<td>$20,066,000</td>
<td>$98,124,000</td>
<td>20.4%</td>
</tr>
<tr>
<td>1992</td>
<td>$30,759,000</td>
<td>$163,767,000</td>
<td>18.8%</td>
</tr>
<tr>
<td>1993</td>
<td>$29,197,000</td>
<td>$157,063,000</td>
<td>18.6%</td>
</tr>
<tr>
<td>1994</td>
<td>$28,511,000</td>
<td>$156,579,000</td>
<td>18.2%</td>
</tr>
<tr>
<td>1995</td>
<td>$17,920,000</td>
<td>$103,068,000</td>
<td>17.4%</td>
</tr>
<tr>
<td>1996</td>
<td>$17,753,000</td>
<td>$124,889,000</td>
<td>14.2%</td>
</tr>
<tr>
<td>1997</td>
<td>$16,066,000</td>
<td>$108,685,000</td>
<td>14.8%</td>
</tr>
<tr>
<td>1998</td>
<td>$15,764,000</td>
<td>$128,103,000</td>
<td>12.3%</td>
</tr>
<tr>
<td>1999</td>
<td>$13,696,000</td>
<td>$107,183,000</td>
<td>12.8%</td>
</tr>
<tr>
<td>2000</td>
<td>$8,010,000</td>
<td>$66,540,000</td>
<td>12.7%</td>
</tr>
<tr>
<td>2001</td>
<td>$12,396,000</td>
<td>$97,660,000</td>
<td>12.7%</td>
</tr>
<tr>
<td>2002</td>
<td>$12,115,000</td>
<td>$84,277,000</td>
<td>14.4%</td>
</tr>
<tr>
<td>2003</td>
<td>$9,451,000</td>
<td>$40,719,000</td>
<td>23.2%</td>
</tr>
</tbody>
</table>

1 The five counties are King, Pierce, Skagit, Snohomish, and Thurston.
Source: Bureau of Economic Analysis, U.S. Dep. of Commerce, Regional Economic Information System, Table CA45.
2 Data for 2003 should be considered preliminary, and are subject to significant revision.
**BENCHMARK 3: LAND IN AGRICULTURAL USE**

Farm employment and net farm income offer revealing, practical measures of agricultural production and viability. However, to ensure a truly comprehensive understanding of agricultural conditions and trends, it is also imperative to track what is happening in, or to, the physical landscape.

Unfortunately, at present, no definitive or consistent source of land use information exists for Pierce County agriculture. Over the years, land use categorizations have changed, morphed and merged, making it nearly impossible to discern with any certainty how much land has been lost or added to the agricultural base, let alone how much agricultural land is in active production.

In our analysis of Policies and Regulations that impact Pierce County agriculture (Technical Memorandum 5), we provided a series of maps depicting the “progression of the built environment” in Pierce County by showing the increase in “improved” parcels (i.e. permitted structures) from pre-1950 to present. While this is helpful as a proxy measure of development patterns and intensity, it does not provide an accurate tracking of agricultural land conversion. Changes in the way the Pierce County Assessor categorized land use designations, occurring during the early 1990’s, further cloud the ability to discern what has occurred with agricultural lands over the last decade, and no source provides a clear indication of how much land designated for agricultural use is or was actually in production at any given time.

Nonetheless, some measurement of land classification, use and status over time will be helpful in providing an objective evaluation of agricultural viability and trends. The following benchmarks could be particularly helpful:

- Acres of land actively farmed/in production
- Rate of land converted to non-ag uses
- Acres of land purchase/preserved through Conservation / PDR / TDR programs
- Farm parcels at risk of fragmentation (non-agricultural uses abutting farm parcels or allowed under current zoning)

To track such information, Pierce County would have to make some fundamental changes to the way it records land uses, and assign an office or individual to actively track the data and report trends. These ideas are further discussed in the Competitiveness Strategy (final report and recommendations).

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3 Based on CountyView GIS data provided by Robert Allen, Pierce County Economic Development Division, Office of the Executive.
Table 4 provides a summary of and rationale for recommended benchmarks.

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Rationale</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Ag Employment: Pierce County</td>
<td>Employment (hired labor) is a significant indicator of the agriculture sector’s economic well-being.</td>
</tr>
<tr>
<td>2 Ag Employment: Pierce County versus Five Peer Counties</td>
<td>Employment relative to peer counties denotes performance.</td>
</tr>
<tr>
<td>3 Establishments with Covered Employment: Pierce County</td>
<td>The number of establishments shows the trend in the number of commercial operators.</td>
</tr>
<tr>
<td>4 Establishments with Covered Employment: Pierce County versus Five Peer Counties</td>
<td>Number of establishments compared to peer counties demonstrates performance versus competitors.</td>
</tr>
<tr>
<td>5 Net Farm Income: Pierce County</td>
<td>Net income is a key measure of the sector’s financial well-being.</td>
</tr>
<tr>
<td>6 Net Farm Income: Pierce County versus Five Peer Counties</td>
<td>Net income compared with peers is a prime indicator of future growth potential.</td>
</tr>
<tr>
<td>7 Land in Agricultural Use: Pierce County (Proposed for future consideration)</td>
<td>The amount of land in production reveals actual use of ag-designated lands; rates of conversion, designation and preservation provide an indicator of future production capacity.</td>
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Pierce County Agriculture Strategic Plan

Summary of Stakeholder Interviews

Prepared for:
Pierce County, Washington

By:
Barney & Worth, Inc.

In association with:
Globalwise, Inc.

October 5, 2005
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I. Executive Summary

Introduction

Pierce County is seeking to better understand the emerging needs of the local agriculture sector and boost its competitiveness. The final product, a Strategic Plan for Pierce County Agriculture, will analyze and discuss the future economic viability of agriculture as an industry in Pierce County, and outline recommendations for protecting and promoting agriculture operations.

To complete the Strategic Plan, Pierce County and its partners have commissioned a consultant team led by Barney & Worth, Inc. In the early stages of the strategic planning process, the consultant team conducted a series of confidential interviews with a cross-section of representatives from the Pierce County agriculture community and other key stakeholders. Interviews were conducted in-person and by telephone with some fifty persons, including: farmers and ranchers from all parts of the county, food processors, agriculture industry representatives, technical experts, restaurateurs, Pierce County elected officials and staff.

Participants were asked to share their perceptions related to the Pierce County agriculture sector, along with their vision and suggestions for the future. The observations, insights and suggestions provided by the individuals who participated will contribute to subsequent phases of strategic planning. This report reflects the advice, feelings and attitudes of the individuals interviewed. It is not intended to provide a scientifically valid profile of community opinion as a whole.

Summary of Findings

The following presents a summary of key points offered by stakeholders contacted during the interview process. More detailed responses are summarized in later sections.

Perceptions of Agricultural Viability

- **Most stakeholders believe** agriculture can continue to be economically viable in Pierce County, if adapted to meet emerging market demands and targeted to the large local urban market. On the other hand, many observers question whether the era of traditional, large-scale agriculture operations is over for Pierce County.

- Pierce County agriculture benefits from some distinct competitive advantages, including: proximity to a large (and largely untapped) urban market; experienced farmers; fertile soils and a climate well suited to a wide range of products; and emerging Community Supported Agriculture enterprises.

Biggest Obstacles

- **Constant development pressure**, escalating land costs and associated bumps in property tax assessments have all but eliminated the profit margin for many long-time Pierce County farmers, and created huge entry barriers for prospective new farmers.

- **Rising costs** — for labor, production, processing and shipping — have driven operating expenses beyond the reach of many farmers.

- The urbanization of agricultural zones has placed tough limitations on many farmers. New residents resist odors, smoke, nighttime noise, farm vehicle traffic, and other activities typical of any farm operation.
Local / state regulations seem overly stringent and, at times, confusing to farmers. In some instances, regulations designed for urban development are applied to rural farm operations, adding time and cost to normal operations and, in some cases, preventing farm expansion.

Communication is strained among farmers, and between farmers and local government – or is not taking place at all. Policymakers have not received a clear message from farmers on what may be needed, and have not placed agriculture as a top priority.

Agricultural processors have declined, just as the number, size and volume of growers has diminished. Equipment dealers, inspectors and other infrastructure and services are also necessary to maintain a productive and efficient agriculture system.

Changing markets and increasing competition have forced many farmers out of business. Farmers accustomed to “growing” rather than “marketing” have floundered as chain grocers contract with out of state growers and “niche” market demands are filled by more nimble competitors.

Strategies to Improve Viability

Interviewees agree that creating a “Farmbudsman” position, either housed at the County or WSU Puyallup Research Center would provide a low-cost solution for overcoming a number of the most commonly cited obstacles. Most observers believe a qualified, trusted liaison could enhance communication, provide direction to policymakers (as farmer representative), and to influence farmers (as government representative), and help them identify products and markets to match their strengths and turn a profit.

Simplifying and refining regulations that unduly affect farmlands can help improve farmers’ margins by lowering costs.

An effective, properly-funded Purchase/Transfer of Development Rights (PDR/TDR) program can help retiring farmers transition out of farming, and facilitate or offset the costs for new farmers entering the system. Land will have to be purchased at fair prices, and operations may need subsidies to ensure the land remains in agricultural use.

Agricultural infrastructure – processors, equipment dealers, farm lenders, etc. – will be needed whether farmers remain in traditional large-scale, mono-crop agriculture, or transition into new, smaller diverse product markets. Pierce County may need to consider subsidizing processors so that they can operate viably in Pierce County.

A comprehensive education and outreach campaign is needed to ensure the future viability of Pierce County Agriculture. A program could:

1. Educate the public regarding the benefits of buying local.
2. Encourage local grocers to use and promote locally grown products.
3. Convince local businesses, institutions, other large food providers to purchase locally.
4. Grow the base of the nascent Community Supported Agriculture (CSA) sector.
5. Garner community support for larger scale public investment in land preservation.

Farmers assistance programs need to be better coordinated to make a significant impact. Funding and technical assistance should be provided in a “one stop shopping” format, so farmers know where to turn for help on a wide variety of issues.

Pierce County can play a role in some of the activities suggested by stakeholders:

- Establish or support a “Farmbudsman” or similar position.
- Simplify the regulatory framework, and streamline the approval process for farmers.
Offer (or support) technical assistance training (business plans, marketing, etc.)

Provide public funding to purchase and preserve critical agricultural lands

Make agriculture a priority at the policymaking level; support “Buy Local” efforts.

The next sections provide representative quotes in participants’ own words, followed by a more detailed discussion of the results of the 50 stakeholder interviews conducted in August-October 2005 for the Pierce County Agricultural Plan. A list of persons interviewed and discussion questions appear as appendices.
What People are Saying….

The challenges of farming in Pierce County …..

- “A lot of farmers are having a tough time because they aren’t changing with the times. They have to move to niche farming and start growing high-end crops they can make money on.”
- Farmland is being replaced by houses. “If we were having this conversation in 10 years, there probably would not be any farms to talk about.”
- “People and ag don’t mix; with the encroachment of homes, the farmer always loses”
- “Pierce County treats a chicken house the same as an apartment building. In Grant County, the average building permit takes two days; in Pierce County one year.”
- “I’m looking at building a regular fruit stand and am concerned getting a permit for a 5,000 sf stand. The first thing a County staffer said to me when I asked about it is “where is your engineering study?”
- “Farming is hard work—physically and emotionally; it is hard to find people who will deal with this type of life.”
- “My kids can work anywhere for 40 hours and make twice what I do on the farm.”
- “Can the County allow us to sell at least some land to be able to keep farming? I’ve taken good care of this land for decades, and feel entitled to some kind of retirement. What would County officials do if they had 98.5% of their retirement taken away from them? There’d be riots!”

What it takes to be successful…..

- “As in everything, the entrepreneur succeeds because he knows how to market. We need to work with farmers like we do with other small businesses.”
- “Successful growers in Western Washington are the ones who are always looking for new markets, who are looking for ways to cut their costs, and who are well capitalized.”

Key strengths of Pierce County agriculture…..

- “Our produce is local, fresh and high quality. The stuff the chains sell is disgusting.”
- “I’ve heard we have the best soil in the world. It’s a shame the value of food isn’t high enough to encourage protection of the soils. Maybe it’s going to take a national disaster for people to realize the value of having ag land.”
- “Our greatest strength is proximity to markets. Nearly 2 million people live within a 30-mile radius. If 5 percent of them buy local, that’s enough to exhaust Pierce County’s production capacity.”

The future for Pierce County agriculture…..

- “Progressive agriculture can be an engine for economic development.”
- “I think if the people in Pierce County want to save agriculture, they need to pay for it. The farmer has been stuck with the cost of preserving the land. People in Oregon voted to pay for it. For them, they thought it worthwhile to pay for open space and rural lifestyle.”
- “Our future farmers need to learn how to brand and market; need to be portrayed as artisans who contribute high value to our community.”
- “Farmers need a spokesman to advocate for their needs: Our lands are locked up, our costs are up, we need help. Please buy local.”
- “We have to weave Pierce County agriculture into the fabric of the community.”
II. Stakeholder Responses

Introduction

Interview participants were asked a number of introductory questions on:

- Their personal involvement in agriculture and/or Pierce County agriculture issues
- Perceptions of current and future economic viability of agriculture in Pierce County
- Non-economic values or benefits that agriculture generates for the greater community

A summary of responses to the questions is provided below.

Personal Involvement in Pierce County Agriculture

1. In what capacities have you been involved in Pierce County agriculture over the years?
   Interviewees include farmers and ranchers from across Pierce County, food processors and other agriculture industry representatives, policymakers, economic development specialists, health professionals, planners, economists, extension agents / technical experts, restaurateurs and others.

Economic Viability of Pierce County Agriculture

2. Do you think agriculture is economically viable in Pierce County? (Why/why not?) If so, what will it take for agriculture to remain economically viable? If not, what can be done to help make agriculture economically viable in the future?

Most stakeholders believe agriculture can continue to be economically viable in Pierce County, assuming certain conditions exist. Some of the commonly cited factors that will contribute to Pierce County agriculture’s future economic viability include:

- **Proximity to a large urban market** – some suggest there isn’t enough production capacity to meet potential consumer demand in Pierce County. Yet only a very small percentage of what is grown locally is consumed locally. Moreover, increasing food safety concerns, transportation costs and other factors may lead to higher demand for locally products.

- **Farmer adaptability** – farmers must be able to meet changing demands, find a role in evolving markets.

- **Land availability** – the County must act now to preserve limited remaining agricultural lands, stakeholders say.

- **Marketing know-how** – many stakeholders believe technical assistance could benefit farmers, helping them penetrate the large nearby urban market.

- **New markets** – some suggest viability is more likely for very small farms catering to niche markets. Large-scale, commodity producers will continue to decline, these observers predict.

- **Proactive support from Pierce County government** – suggestions vary, but many interview participants suggest the County will need to play a leading role in preserving farmland, streamlining regulations, developing new markets, promoting “buy local” programs, and conducting community education activities.
• Enhanced communications – among farmers, purchasers, technical experts, government and the community.

Other stakeholders are less optimistic, citing a number of challenges that make economic viability difficult if not impossible in Pierce County. Factors mentioned include:

• Increasingly tough competition from out-of-area competitors with longer growing seasons, cheaper prices, and corporate contracts with major grocery distributors.
• Relentless development pressure which has “boxed in” or “eaten up” many of the area’s larger farms and made expansion all but unfeasible; loss of agricultural lands county-wide, and especially in the Puyallup Valley.
• High cost of land, making agricultural use almost impossible unless a person “marries into or inherits it.”
• Escalating property tax bills. Several participants say farmers are being “taxed off their land” as the value is driven up by adjacent development.
• Governmental regulations, which some say are increasing in number and complexity, reducing the amount of land that can be farmed, and increasing the time and cost involved.
• High cost of labor (minimum wage), relative to other states and other countries.
• Lack of equipment dealers, processors and other support services.

3. Are there some local ag businesses that thrive, while others do not? (Any idea why?)

Interview participants cite flexibility and adaptability as key traits for economically successful agricultural operations in Pierce County. Additional qualities or conditions that contribute to success include:

• Learn about and enter diverse markets; grow diverse products
• Accept new definitions of “farming” (i.e., farming can be small scale, non-traditional crops, etc.).
• Have an entrepreneurial spirit, like other small business owners
• Grow niche products or work in niche markets including those participating in Community Supported Agriculture (CSA) operations
• Own their land debt-free
• Have integrated their operations and mastered direct marketing
• Have formed or participate in partnerships or cooperative efforts
• Continue to improve and build upon customer relationships
• Are well-capitalized and spend wisely

Stakeholders also note factors they believe limit success for some local agricultural businesses: including:

• Development pressure and escalating land costs/tax bills are facing farmers in the Fife, Sumner, Puyallup and Orting areas
• Disinvestment: some farmers have stopped investing and / or have not diversified their product line because they plan to sell their land.
• Competition: some farmers continue to grow crops that are more easily produced for less cost elsewhere.

Non-Economic Contributions and Benefits of Agriculture

4. Looking beyond the economic contributions of agriculture, what other values or benefits does agriculture provide for the community?

Stakeholders list numerous benefits agriculture provides:

• Preservation of open space
• Quality of life; sense of community / wholesome activities / identity
• Education (e.g. farm tours provide families insight into how food is produced)
• Aesthetics; view corridors
• History/nostalgia; preservation of traditional culture (daffodils); historical sites and features
• Ready source of local produce reduces health risks
• Flood protection; increases permeable land to reduce stormwater runoff; prevents development from occurring in most “critical area” flood-prone lands; retains soils
• Habitat protection: for salmon, birds/wildlife
• A more stable, fresher source of vegetables; a boon to quality restaurants; fresh food source for food banks
• Links to universities
• Employment opportunities for unskilled labor
• Enhanced water quality; aquifer protection
III. Strengths, Weaknesses and Opportunities

Interview participants were asked for their candid assessment of the current strengths, weaknesses and opportunities for Pierce County agriculture:

- Strengths of Pierce County agriculture, and how can they be built upon
- Barriers to a viable agriculture sector, and how they can be overcome
- Specific steps for fostering a prosperous agriculture sector
- A single most important change or action that could benefit agriculture
- Untapped production efficiencies or market opportunities
- Successful peer community programs that could inform Pierce County’s plan

A summary of responses to each question is provided below.

**Strengths of Local Agriculture Sector**

5. **What do you consider to be the key strengths of Pierce County agriculture? Can these strengths be built upon to increase overall agricultural viability in the future? (How?)**

The strength named most often for Pierce County agriculture is proximity to a large urban market. Other notable strengths identified by stakeholders include:

- Rich soils; favorable climate and availability of water
- Diversity of crops
- Family-owned farms, entrepreneurial-driven, who take pride in their operations; “really smart farmers”
- Diverse labor pool
- Low transportation costs, if serving local market
- Growth in size, number and popularity of farmers markets and community supported agriculture operations
- Puget Sound Fresh program in place
- WSU Research Center

**Significant Barriers**

6. **What are the most significant barriers hindering the viability of local agriculture (e.g., development pressure, regulations, competition, specific cost factors, etc.)? How can these be overcome?**

Development pressure and the loss of viable farm land top the list of stakeholder-identified barriers to local agricultural viability. Other barriers and challenges mentioned frequently include:

- Customers’ unwillingness to pay for value of food; lack of community investment in agriculture (e.g., not enough “Buy Local” participation)
- The high cost of land
• Farmers’ unwillingness to adapt to new markets, products; continued commitment to wholesale agriculture
• Absence of marketing expertise
• Lack of effective partnerships
• Confusing, sometimes unfair tax structure
• Depleted, increasingly expensive work force
• Increasing capital requirements; difficult entry barriers for prospective new farmers
• Waning interest in farming (e.g., declining participation in FFA)
• Reduced market access due to growing regional / international competition; consolidation of buyers and processors and pressure on prices; loss of independent retailers, growth of national chains that purchase elsewhere
• Land use rules that are inappropriate for rural areas (e.g. landscape requirements for farm buildings)
• Farmers wanting to sell their land as a retirement plan
• Small, under-funded and fragmented assistance programs; need for information, technical assistance clearinghouse
• Lack of necessary agriculture infrastructure (e.g., processors, brokers, equipment dealers, ag lenders, etc.)

Strategies to Foster a Prosperous Agriculture Sector

7. What, specifically, can be done to foster a more prosperous agricultural sector in Pierce County? (Who should take the lead?) Is there any role County government should play?

Stakeholders suggest a variety of initiatives and actions that may help make agriculture more prosperous in Pierce County. One concept is to appoint a Pierce County “Farmbudsman” that would provide a direct liaison between government and farmers. Some observers think this position could help resolve conflicts, enhance communications and improve market access and new product development for farmers. Another frequent suggestion is to initiate a “Buy Local” program. Other suggestions include:

• Increase the relevance and role of the WSU Puyallup Research Center, including one-stop farm support services.
• Offer targeted marketing and education programs for farmers, as Pierce County does for other types of small businesses. Develop programs to train people who are interested in becoming farmers.
• Establish a Purchase/Transfer of Development Rights program to preserve critical farmland.
• Increase the number and geographic representation of farmers markets. Offer farmers market vouchers to seniors, or provide grants to senior centers for purchasing local products.
• Increase direct grower access to grocery stores, restaurants and local institutions (e.g. University of Puget Sound, Pacific Lutheran University, Trade/Convention Center, Corrections, etc.).
• Amend certain environmental and development regulations that are not appropriate in rural, agriculture centers.
- Raise the public’s awareness of farms and agricultural land, securing their assistance (public dollars) in preserving farmlands and purchasing locally-grown products.

- Protect the few remaining implement dealers.

- Invest in the development of an agri-tourism program.

- Link the purchase and consumption of fresh foods to an ongoing health / nutrition campaign.

- Offer incentives to farmers to set up processing businesses; subsidize farmers for the types of crops needed to build a successful food processing industry.

- Create formal agricultural zones, with speed limit signs, interpretive signage and other information that conveys the importance of agriculture and protects farmers “right to farm.”

- Catch up on the maintenance of irrigation ditches.

8. **If you could make a single change that would most benefit local agriculture – what would it be?** (e.g., new/revised regulations, access to credit, capital improvements, technical assistance, branding, etc.)

   Most stakeholders are hard pressed to name “just one thing” that would most benefit local agriculture. However, the “Farmbudsman” concept and a “Buy Local” campaign are often cited. Additional suggestions include:

   - Invest in and expand the range of services available through the WSU Puyallup Research Center and associated facilities.

   - Place agriculture into the proper content, whereby decision-makers and public learn the value of local agriculture, and come to support it. Put agriculture’s needs front and center in public discussion.

   - Get government, business and institutional customers to commit to purchasing local produce.

   - Preserve what is left of prime agriculture land, while also easing the transition of farmers no longer able or interested in farming. Create buffer sites between farms and development.

   - Find a “champion” to support agriculture issues at the policy-making level.

   - Assist farmers to identify and enter into new markets.

   - Conduct a comprehensive overview of laws and policies affecting farmers, and eliminate or restructure those that appear to be unnecessarily restrictive, damaging. Clarify existing regulations to avoid misinterpretation.

   - Reduce cost of land to facilitate access for motivated farmers.

   - Ensure any approach to improving conditions for agriculture is county-wide, involving all 23 towns and cities in Pierce County.

   - Investigate the potential for offering or low interest loans to farmers to reduce their cost of doing business in light of increasing international competition.

   - Review and amend the property assessment and tax structure and identify measures that lessen the burden on farmers.
9. Are there any untapped production and/or market opportunities that should be further explored (e.g. new markets, niche markets, more efficient production systems)? What can be done to facilitate farmer/producer access to these emerging markets?

There are two views on new market opportunities. One group sees the future of local agriculture tied to the development of new products targeted for emerging or niche markets. Another, smaller group believes efforts should focus on opening up or facilitating access to markets that utilize traditional crops and products. Participants’ recommendations include:

- Educate farmers about season-extending alternatives – greenhouses, row crops, crop covers. If growing seasons are extended, farmers markets can stay open year round.

- Make a concerted effort to get Pierce County products into local markets, rather than competing with national or international conglomerates.

- Help producer cooperatives expand into processing and manufacturing.

- Investigate new products and industries, including:
  - Organic food (beef, poultry, grains, etc.)
  - Nurseries and greenhouses
  - Value-added (e.g. packaged apple slices, bagged lettuce, jams, sauerkraut, etc.)
  - Niche products (e.g. applets, endive, wine, Asian pears, goat cheese, etc.)
  - Non-wood based fiber storage containers
  - Bio-diesel fuel

- Market directly to urban population, and especially new residents.

- Market to convention / visitor industry, with emphasis on locally grown, natural products.

- Develop connections between growers and chefs / restaurants, as is done in King County.

- Improve the Farm-to-Cafeteria Program.

- Increase exports through the successful Port of Tacoma.

- Help WSU Research facility become as important as Portland’s Food Innovation Center

- Help grow bigger and better Community Supported Agriculture systems.

- Weave Pierce County agriculture into the fabric of the community.

Successful Peer Community Programs

10. Are you aware of any successful programs or policies in other communities that have contributed significantly to the viability of local agriculture?

Stakeholders identify a variety of communities that have developed programs and policies to improve agricultural viability. These include:

Washington

- "Buy Local" programs, including Puget Sound Fresh
- Farm Link mentoring program
- Snohomish County
• Jefferson County
• Skagit County has “Right to Farm” policy and land use regulations that benefit the green industry
• Multiple Purchase / Transfer of Development Rights programs
• The Evergreen State College has a successful organic salad bar, “buy local” program.
• Sequim Valley’s Lavender Festival brings attention to the area’s growers, provides grower education and enlists support from the growers

Other States
• The Intervale Foundation (a non-profit that reclaims brownfields, teaches people to farm, helps them lease land)
• The “Gardening Across America” program
• American Farmland Trust programs in Maryland, Oregon, California
• New Jersey has a strategic plan for agriculture that recommends targeted investments
• North Carolina has a successful food labeling program to promote locally-grown products
• The State of Massachusetts successfully protects Connecticut River Valley farmland
• The New England Small Farm Institute in Vermont offers a true “package” of opportunities, including a program that uses community labor in exchange for fresh produce

Canada
• Canadian program pays for laborers’ travel, provides housing and a bonus if workers remain on site for full season
• British Columbia government subsidizes greenhouses to extend the growing season
IV. Future Vision

Interview participants were asked to share their own sense of how Pierce County agriculture should evolve in the future. Questions addressed the following topics:

- Interviewees’ personal vision for the future of Pierce County agriculture
- Importance of and responsibility for preserving local agriculture
- Benchmarks for measuring or monitoring the status of agriculture in the future

A summary of responses to each question is provided below.

Personal Vision for Agriculture in Pierce County

11. What is your personal vision for the future of agriculture in Pierce County? What would you like to be able to say about Pierce County agriculture in the year 2020?

Stakeholders’ shared vision is for an agriculture sector in Pierce County that is thriving – but much different from today’s ag sector. Future agriculture is envisioned to be smaller scale, and largely supported by the local community. Elements of participants’ personal visions include:

- Small scale, diversified, direct-market agriculture thriving in Pierce County; niche and value-added products profitably produced on small parcels.
- Stable urban area surrounded by small boutique farmers with diversified niches.
- Farmers are actively engaged in education provided through local schools and cities.
- A sustainable level of food crops remains in production.
- Farmers markets thrive county-wide.
- Prime agriculture land and soils have been preserved; no more big conversions of prime farmland (100 acres+).
- Land is appropriately valued for agricultural use.
- The community supports local agriculture; at least 10% of what people consume is produced locally. Local businesses and institutions purchase local produce.
- A vital, vibrant agriculture industry provides quality of life we wouldn’t know otherwise. Local agriculture contributes to healthy lifestyles.
- Farming is accessible to new farmers.
- Rules and regulations are in place that allow farmers to prosper; Pierce County is nationally known as an urban county that supports its farmers.
- Local agricultural resources are used for education, and food is grown on school property.
- Nurseries (growers and retail) continue to thrive.
- Farmers make a viable living.
- People and government of Pierce County help save agriculture and make it better.
Importance of Saving Agriculture Land and Who is Responsible

12. Is it important to save/preserve/maintain agriculture as an industry in Pierce County? If so, whose responsibility is that?

Most stakeholder interviewees agree it is important to preserve agriculture as an industry in Pierce County, with responsibility shared by County, government, citizens, farmers and other interests. A few participants are worried it may be too late. A sample of comments:

- “Agriculture lands and uses should always remain so, especially in the Puyallup River Valley where development is in the path of a volcanic flow area.”
- “Local food is better tasting and safer than imports.”
- “We may need the sustenance some day.”
- Pierce County government and citizens have to be more proactive in preserving agriculture. “We say we support local agriculture, while we stand by as more and more land is developed.”
- “I think if the people in Pierce County want to save agriculture, they need to pay for it. The farmer has been stuck with the cost of preserving the land. People in Oregon voted to pay for it. For them, they thought it worthwhile to pay for open space and rural lifestyle.”
- “The primary responsibility for preserving agriculture lies with the private sector, but it is the County’s responsibility to set the table to help them flourish.”
- “Yes it is important; the county needs to draw the line on sprawling development and further enact policies to support farmers, and farmers have to work to find profitable business models.”
- “Yes, and maintaining agriculture is the responsibility of the taxpayers in Pierce County. It is in our (the taxpayers) interest from an economic security standpoint to supplement the farmers potential to grow crops. It is an important investment in hard-working people. The taxpayer should pay for this. It is the same situation as the incentive given to Boeing to stay in Washington.”
- “It would have been worth saving about 15 years ago, when there were more of us farming. We had 20 growers of lettuce and ranked 5th in the nation for production. Now we’re not even on the map.”
- “It’s not worth saving. There is enough land in other areas to produce the food and ship it in at lower prices.”

Benchmarks to Measure Progress

13. How can we measure progress? What kind of benchmarks would tell us if we’re successful in implementing your vision?

Stakeholders suggest a combination of empirical and anecdotal benchmarks to gauge the success of Pierce County’s agriculture sector:

- Increase in local consumption of local products; number of restaurants, institutions, and retail outlets using local products
- Amount of land in production; production volume
- Change in value of agriculture land
• Number, size and profitability of farms remaining in production; number of farmers whose agricultural operation is their primary income source
• Gross sales receipts; change in profit margin on selected crops; investments in agriculture
• Number of new farmers entering market
• Age of farmers
• Number of farmers entering value-added processing
• Location of new development (urban areas or farm land); rate of land conversion: before / after implementation of Strategic Plan; number of building permits issued in agricultural zones
• Level of communication between farmers and government
• Farmers market statistics (number, grower participation, sales, attendance)
• Participation in WSU Extension Service activities / classes
• Level of infrastructure in place to support agricultural activities
• Production volume
• Range of different crops in production
• Number of farming operations that have expanded
• Types of services provided by County, and effect they are having
• Future Farmers’ outlook for the future: do they plan to remain in farming?
• Change in consumer, resident attitudes toward agriculture
• Number of new nursery licensees
V. Final Thoughts

At the conclusion of each stakeholder interview, the consultant team asked participants to:

- Offer a single most important piece of advice for the study
- Suggest additional stakeholders who could offer unique and valuable insights into local agriculture
- Contribute any additional comments or suggestions on agriculture issues not covered in the survey

A summary of responses to each question is provided below.

14. As we proceed with development of the Strategic Plan for Pierce County Agriculture, what single most important piece of advice would you offer?

Stakeholders’ “most important piece of advice” falls in these categories:

- Look at other communities that have already dealt with these issues, and learn from their successes.
- Create a “Farmbudsman” position at the County level.
- Start a “Buy Local” campaign.
- Engage the public in this dialogue and garner their support for agriculture.
- Increase communication between farmers and resource agencies.
- Set priorities, and apply resources to those that are going to do the most for the agriculture sector.
- Seek buy-in from County Council, County Executive, and the farmers themselves.
- Provide assistance with marketing and market identification as the most immediate needs.
- Compensate land owners fairly.
- Give policymakers direction.

15. Who else would you recommend we speak with regarding the future of agriculture in Pierce County?

Nearly 100 additional names of individuals and organizations were nominated by survey participants.

16. Any further comments or suggestions?

Additional comments offered by one or more interviewees:

- Consider pursuing additional funds to purchase ag land, open space and trail enhancements.
- Do a permitting case study on development of farm buildings: how long does it take in Pierce County compared to other counties?
- Putting homes around farms leads to inevitable conflicts.
- Keep farmers connected to changes in technology.
• Farmers need a spokesman to advocate for their needs: “Our lands are locked up, our costs are up, we need help! – Please buy local!”

• The response of grocery chains is disappointing. They refuse to buy local produce – even if its better and cheaper.

• Current conditions are driving farmers to consider selling their land for retirement.

• Buying development rights for a few thousand dollars an acre won’t be competitive with private development offering $25,000 an acre.

• Tacoma has a changing restaurant scene because the demographics are changing. It’s no longer a working class/blue collar/military town. The influx of new homeowners is driving the changes. But change is slow. Seattle may have 40+ restaurants that use local products—Tacoma has one (Primo Grill).

• Agriculture in urban areas is overregulated. Farmers need incentives and assistance – not regulation.
Appendix A
Pierce County Agriculture Strategic Plan
Interview Participants

Pierce County Council

Shawn Bunney, County Council (District 1)
Roger Bush, County Council (District 2)
Timothy M. Farrell, County Council (District 4)
Calvin Goings, County Council (District 3)
Dick Muri, County Council (District 6)

County Staff

Rob Allen, Economic Development Division
Brynn Brady, Planning & Land Services
Denise Dyer, Economic Development Division
Eileen Finnegan, Tacoma-Pierce Health Department
Kimberly Freeman and Dan Cardwell, Planning & Land Services (Alderton-McMillin)
John Ladenburg, County Executive and Lyle Quasim, Deputy Executive
Hugh Taylor, County Council staff
Chip Vincent, Planning & Land Services (Advanced Planning)

Agriculture Community

Dick Carkner, Terry’s Berries, Farm Advisory Commission
Ben DeGoede, Windmill Gardens
George Dill, Washington Lettuce & Vegetable Co.
Mary Embleton, Cascade Harvest Coalition
Holly Foster, Zestful Gardens
Maidee Gregory, Watson’s Nursery
Sonie Hansen, Puyallup Farmers Market
Richard Hines, Small Farms Program
Tim Johannes, Tim’s Fine Berries
Tim Kennedy, Tim’s Cascade Potato Chips
Roger Knutson, Knutson Farms
Carrie Little, Mother Earth Farm
Monty Mahan, Pierce County Conservation District
Jeanne McNeil, Washington State Nursery and Landscape Association
Richard Meyer, Pierce County Farm Advisory Commission
Marcy Ostrom, WSU Small Farms Project
George Richter, Richter Farms
Ronald Sasaki, Alderton-McMillin farmer
Jeff Spooner, Spooner Farms
Jack and Jake Sterino, Sterino Farms & Fruitstand
Keith Underwood, WSU Cooperative Extension Service
Chris and Jim Wilcox, Wilcox Farms, Pierce County Farm Advisory Commission

Others

Anne Berblinger, U.S. Economic Development Administration, Gales Meadow Farms
Jeremy Eckert and Ryan Dicks, Cascade Land Conservancy
Dave McCallum, Jr.
Joe McGarry and John Riggs, Bon Appetit
Charlie McManus, Primo Grill
Steve Moergeli, Mt. Rainier National Bank
Raul Ramos, Puyallup Tribe
Don Stuart, American Farmland Trust
Ken Weaver, Bank of America
Appendix A
Pierce County Agriculture Strategic Plan
Stakeholder Interviews – Discussion Guide

Name: ___________________________ Phone: ___________________________
Address: ___________________________ E-mail: ___________________________

Introduction

Pierce County is embarking on a project to better understand the emerging needs of the local agriculture sector, and boost its competitiveness. The Pierce County Agriculture Strategic Plan will outline recommendations to protect and promote agriculture. In the early stages of planning, we are conducting confidential interviews with a cross-section of the Pierce County agriculture community, as well as other community leaders.

1. In what capacities have you been involved in Pierce County agriculture over the years? (e.g. farmer, food processor, policymaker, farm neighbor, etc.)

2. Do you think agriculture is economically viable in Pierce County? (Why/why not?)
   • (If so) What will it take to for agriculture to remain economically viable?
   • (If not) What can be done to help make agriculture economically viable in the future?

3. Are there some local ag businesses that thrive, while others do not? (Any idea why?)

4. Looking beyond the economic contributions of agriculture, what other values or benefits does agriculture provide for the community?

Strengths/Weaknesses/Opportunities

5. What do you consider to be the key strengths of Pierce County agriculture? Can these strengths be built upon to increase overall agricultural viability in the future? (How?)

6. What are the most significant barriers hindering the viability of local agriculture (e.g., development pressure, regulations, competition, specific cost factors, etc.)? How can these be overcome?

7. What, specifically, can be done to foster a more prosperous agricultural sector in Pierce County? (Who should take the lead?) Is there any role County government should play?

8. If you could make a single change that would most benefit local agriculture – what would it be? (e.g., new/revised regulations, access to credit, capital improvements, technical assistance, branding, etc.)

9. Are there any untapped production and/or market opportunities that should be further explored? (e.g. new markets, niche markets, more efficient production systems). What can be done to facilitate farmer/producer access to these emerging markets?

10. Are you aware of any successful programs or policies in other communities that have contributed significantly to the viability of local agriculture?
**Future Vision**

11. What is your personal vision for the future of agriculture in Pierce County? What would you like to be able to say about Pierce County agriculture in the year 2020?

12. Is it important to save/preserve/maintain agriculture as an industry in Pierce County? If so, whose responsibility is that?

13. How can we measure progress? What kind of benchmarks would tell us if we’re successful in implementing your vision?

**Wrap Up**

14. As we proceed with development of the *Strategic Plan for Pierce County Agriculture*, what single most important piece of advice would you offer?

15. 15. Who else would you recommend we speak with regarding the future of agriculture in Pierce County?

16. Any further comments or suggestions?
Pierce County Agriculture Strategic Plan

Farm Community Survey
Summary Report

Prepared by:
Barney & Worth, Inc.

For:
Pierce County
Office of the Executive
Economic Development Division

November 2005
I. Introduction

In response to changing conditions and emerging needs of the agriculture sector, Pierce County has initiated a project designed to better understand and boost the industry’s competitiveness county-wide. The Pierce County Agriculture Strategic Plan includes a systematic examination of the local agriculture sector, from an economic development perspective. In the final stages, strategies will be developed to promote the agriculture industry and enhance its competitiveness.

As an early step in the planning process, Barney & Worth mailed a questionnaire to members of the Pierce County farm community to solicit their observations on the current state of agriculture, and to identify ideas for strengthening the agriculture sector’s future viability. The farm community survey is intended to broaden input in the Strategic Plan. Other information gathering methods include one-on-one interviews with farmers and other observers of local agriculture and focus group discussions with interested groups. The goal is to ensure that a minimum of 100 individual farmers and other farm community members contribute directly to the planning.

To field the survey, address databases were assembled from farm community contact information maintained by the Pierce County Conservation District and the Pierce County WSU Extension office. The survey package included a one-page cover letter, one-page questionnaire (sample attached) and postage-paid pre-addressed return envelope.  

Of 250 surveys distributed, 23 surveys were returned as undeliverable, and 60 returned completed, resulting in a response rate of just over 26%. This response rate can be considered good for a farm survey timeline that overlapped with harvest season. However, the survey should not be considered scientifically valid as a representation of all farmer perceptions and priorities. Rather, it provides another indicator to consider in assessing the current status of agriculture and shaping a future plan of action.

Key survey themes and outcomes are summarized in the next section. Responses to individual questions are summarized in Section III.

II. Key Findings

A careful review of survey responses yields several key themes, observations and conclusions. A more nuanced summary can be gleaned from a review of responses to individual questions which appear in the final section. Key findings include:

- While only 1 in 5 respondents believes Pierce County agriculture is economically viable at present, about half indicate they somewhat or strongly agree it can be viable in the future.
- The majority of respondents find Pierce County citizens to be at least moderately supportive of the local agriculture industry.
- Some 70% of respondents, however, say local government is not supportive of local agriculture.
- Survey respondents were asked to indicate their level of agreement with specific statements on a scale of 1 (strongly disagree) to 5 (strongly agree). The average score for each statement support the findings listed above:
  - 3.33 – Local citizens are supportive of Pierce County agriculture
  - 3.32 – Pierce County agriculture can be economically viable in the future

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1 It is possible that some survey respondents also participated in stakeholder interviews, though the anonymous nature of the survey makes it impossible to ascertain exactly how many. There were less than a half dozen overlapping names in both databases.
- 2.55 – Pierce County agriculture is economically viable at present
- 1.87 – Local government is supportive of Pierce County agriculture

- The greatest strengths of Pierce County agriculture, according to respondents, are: proximity to large urban market; and good soils/climate.
- The greatest barriers to economically viable agriculture in Pierce County, according to respondents: high land costs; development pressure; regulations; and property taxes.
- Measures or actions that would most improve the economic viability of Pierce County agriculture in the future, suggested by respondents: ease regulations; and institute a Purchase of Development Rights (PDR) program.

These survey results are generally consistent with the findings of stakeholder interviews conducted earlier with 50 Pierce County farm community members and other observers.
III. Survey Responses

1. What are your views on Pierce County agriculture, now and for the future? Fill in the bubble that reflects your level of agreement with each statement:

1A: Agriculture is currently viable in Pierce County

- 20% of respondents agree or strongly agree with the statement.
- 50% of respondents disagree or strongly disagree with this statement.
- The average score for this statement: 2.55.

1B: Local citizens are supportive of the agriculture industry in Pierce County.

- Just under 32% of respondents agree or strongly agree with the statement.
- Just under 37% of respondents disagree or strongly disagree with this statement.
- The average score for this statement: 3.33.
1C: Local government is supportive of the agriculture industry in Pierce County.

- Less than 1% of respondents agree or strongly agree with the statement.
- Exactly 70% of respondents disagree or strongly disagree with this statement.
- The average score for this statement: 1.87.

1D: Agriculture can be economically viable in Pierce County in the future.

- Approximately 50% of respondents agree or strongly agree with the statement.
- Just over 33% of respondents disagree or strongly disagree with this statement.
- The average score for this statement: 3.32.
2. What are the most important strengths for Pierce County’s agriculture sector?

### Most Important Strengths

<table>
<thead>
<tr>
<th>Number of Responses</th>
<th>Proximty to large urban population</th>
<th>Favorable soil conditions and climate</th>
<th>Farmers markets; direct marketing options</th>
<th>Adequate water resources</th>
<th>Good transportation access</th>
<th>Emerging markets/niches</th>
<th>Adequate supply of farmland</th>
<th>Access to capital/credit</th>
<th>Other</th>
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- Pierce County agriculture strengths cited most often by survey respondents include:
  - Tier 1² – *Proximity to large urban market; favorable soil conditions/climate*
  - Tier 2 – Farmers markets; adequate water resources
  - Tier 3 – Good transportation access; emerging market niches
- Strengths cited least often: Adequate supply of farmland; access to capital/credit.
- Other important strengths of Pierce County agriculture volunteered by respondents: people’s desire to operate/support small, family farms.

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² The term *tier* is used here, and elsewhere in this report, to distinguish between visible breaks in response frequency.
3. What are the greatest barriers to economically viable agriculture in Pierce County?

- The greatest *barriers* to economically viable agriculture in Pierce County, according to survey respondents, include:
  - Tier 1 – *High cost of land; development pressure; regulations; property taxes*
  - Tier 2 – Wages
  - Tier 3 – Competition

- Strengths cited least often: Access to markets; access to capital/credit

- Other barriers to viable Pierce County agriculture volunteered by respondents:
  - Competition from outside the state, especially Canada (5)
  - Supply of farmland is decreasing (2)
  - Lack of consumer awareness of importance of local food supply (2)
  - Water costs/availability (2)
  - Food processors are gone
  - Corporate farms serve large customers (e.g., Safeway, Wal-Mart)
  - Highway gridlock / transportation
  - Lack of farm labor
  - Need for more service/help from WSU Extension and Pierce Conservation District
  - Lack of support by local communities
  - Poor planning
  - Wetlands restrictions; building permits & regulations
  - Pressure on profitability; hard for farmers to make a living
  - Declining quality of farmland – ruined by over-development
4. What can be done to improve the viability of Pierce County agriculture?

**How to Improve Viability**

- Actions that will do the most to improve the viability of agriculture in Pierce County, according to survey respondents, include:
  - Tier 1 – *Ease regulations; purchase development rights to preserve farmland.*
  - Tier 2 – Develop markets for local products; restrict non-farm uses in ag areas.
  - Tier 3 – Appoint a “Farmbudsman”; provide technical/financial assistance.
- Strengths cited least often: Facilitate access to capital/credit; improve transportation access
- Other means for improving the viability of Pierce County agriculture, according to respondents:
  - Reduce taxes
  - Encourage agribusiness
  - Implement an alien worker program that works
  - Keep all development out of remaining farm land
  - Make smaller farm acreages available and affordable for family operations
  - Widen Hwy 162 and slow it down
  - Save what is left of the farmland from urban growth expansion in Sumner / Orting
  - Provide low interest loans for new farmers

5. If you could make a single change that would most benefit local agriculture – what would it be?

- Suggestions for a “single change” to most benefit local agriculture fall into several general categories:

  **Market Access / Development**
  - Convince grocery stores to sell local produce while in season.
  - Build a farmer friendly, centrally located farmers market, operating nearly “year round”, like Pike Place Market in Seattle.
  - Provide more help from agencies to promote direct farm retail.
Educate public. Measure and communicate the level of public support for local agriculture, and take specific actions to increase support through education and outreach.

- Grow a diversity of crops in sustainable ways to preserve and improve soil conditions.
- Growing crops locally to serve nearby communities.
- Increase government subsidies for small scale agriculture and direct marketing.
- Make farmers markets cheaper for farmers, and have more of them.
- Ensure market access.
- Promote buy local: entice more stores, restaurants to buy local.
- Improve farmers’ access to local markets / grocery stores

**Regulations**

- Ease regulations.
- Decrease size of buffers for farmland next to streams or wetlands (300’ too much). Don’t let animal wildlife corridors affect farmland.
- De-list salmon.
- Acknowledge that agriculture activity is “industrial”; ease regulations that treat farmland as rural residential: e.g., no signs, times of operation, size and scope of buildings, and on-site processing.

**Fiscal / Tax Adjustments**

- Provide tax breaks, lower taxes for small working farms.
- Control minimum wage.
- Curb development and help with rural access.
- Eliminate Conservation District: a negative, regulating, taxing bureaucracy.

**Farmland Preservation**

- Have County or State purchase or lease development rights while land is used for agriculture purposes. (Price of land for development far exceeds value of land to farm.)
- Facilitate obtaining water rights for agricultural wells.
- Initiate a series of changes. For example: purchase development rights and also impose land use rules that protect farmland.
- Buy up development rights. Restrict city boundaries.
- Increase funds to buy development rights on prime farmland, and on the 3000 acres bordering urban areas.
- Keep the zoning to protect ag land, but make the acreages smaller and affordable for younger generations to farm.
- Keep land in farmers’ hands and discourage real estate development in rural areas. Protect farmland and restrict urban sprawl from consuming farmland.
- Quit putting blacktop over beautiful, rich top soil in the valleys. As long as developers look only to profit - good land will disappear. Government must step forward and save land.
- Stop expansion of warehouses and roads on the valley floor. Zone what farmland is left as agriculture-only. Control acquisition of Class 1, 2, 3 farmland. Save valley floor land for agricultural use. Put houses and businesses on Class 4 land.
- Stop non-farm use in ag areas.

**Other Views**

- Appoint a Farmbudsman – a great idea!
Go back 40 years: fewer people – less government.
Give farmers more input.
WSU Extension is adequately funded. They have considerable expertise to educate growers in the technical aspects of growing crops and product marketing. Avoid duplication created in other agencies and organizations.

Nothing Will Help / Don’t Want Help

Nice that government is 10 years behind the times. Land competition with industry / development has driven out local farmers. Economics favors developers not farmers/growers.
Let those who wish to farm continue to do so. Other farmers should have the opportunity to sell (to developers also). The horse is out of the barn. Small farms have a hard time making money. Also, their children aren't interested in farming for obvious reasons. These farms have paid for their land. Why are others trying to dictate what they can or cannot do with it?
The Orting and Puyallup Valleys have been ruined by greed and poor planning. Pierce County is no longer agricultural / horticultural friendly.
What democratic right does Pierce County have to dictate how or when, or for how much a property owner can or cannot sell his property? Furthermore, how can Pierce County mandate property to remain as agriculture only?! Let the land be sold for houses - industry & etc. There is way too much farmland.
I am unable to pick out only one change because it would take so many changes to benefit local ag to bring back ag. Ag is gone. We will always have a little ag around. At 67 yrs and still in ag, us farmers are a very lonely and in a very difficult occupation in this area.