

ASSESSMENT OF FARM OWNERS' PERSPECTIVES
AND PREFERRED METHODS TO PRESERVE FARMLAND
IN URBANIZING THURSTON COUNTY

by

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A Thesis
Submitted in partial fulfillment of the requirements for the degree
Master of Environmental Studies
The Evergreen State College
December, 2013

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Abstract

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This thesis examines farmland owners' motivations to keep their land in continued agricultural use, particularly farm and ranchland that is close to urban growth areas (UGA) in Thurston County. The Thurston County Planning Department revived a policy commitment in 2011 for Purchase of Development Rights (PDR) on farms to conserve agricultural parcels. The primary research objective of this thesis is to ascertain factors that contribute to a willingness or unwillingness by farmland owners to sell development rights and place a conservation easement that would "lock land" into agricultural use in perpetuity. The secondary research objective is to assess what farmland owners perceive to be the best methods for farmland preservation in Thurston County. Interviews were conducted with forty-seven (47) farmland owners from March to June of 2011. Data was collected regarding views and perceptions of farmland preservation, length of time farming, type of farm operation, and future plans for the farmland. The data was categorized according to reoccurring themes and patterns of thinking. A typology was developed and data was separated into three main categories of reasoning that explain both agreement and reluctance to conserve farmland: economic considerations, spatial aspects of land, and family considerations. The results of the research revealed the following: 1) Fifty-three percent (53%) of the owners plan to keep their farmland in continued agricultural use; 2) Twenty-one percent (21%) are willing to sell development rights to preserve their farmland; 3) Seventy percent (70%) manage pasture for beef cattle and forage; 4) Eighty-five percent (85%) of farmland owners farm part-time and rely on nonfarm income for living expenses; 5) Farms over 200 acres are more likely to withstand development pressure even if located less than one mile from an UGA boundary; 6) Farms over 200 acres are also more likely to consider placing a conservation easement or selling development rights to protect agricultural land; and 7) Only two percent (2%) of farmland owners attribute economic viability as the main reason to retain agricultural land. The panel of farmland owners displayed strong support for farming and retaining farmland, but limitations surfaced in practice.

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Acknowledgements

I would first and foremost like to thank the farm owners for sharing their perspectives that comprise this thesis. The stories of farming and farmland conservation opened a portal into a world I previously knew very little about. I have truly been inspired by the independence and business sense portrayed in the interviews, as well as the knowledge of the environment and daily work ethic that is required to farm and steward the land. I spent a lot of time examining the data to understand the root of reasoning in regard to farmland preservation. There were many nuances, different views and circumstances to reconcile in an attempt to get to the truth of the matter. The data is rich with individual accounts that I believe remain true to context in the summation of what was told. Although I cannot include everything here, I know I collected something very special. As a result, I could not have acquired a better education. Thanks to the South of the Sound Community Farm Land Trust for providing the topic and focus for my research as well as the ongoing dedication to the support of the farm community. A special thanks to my professor, Ralph Murphy, for the conversations and inquiry that guided my analysis. Also for his enduring patience, attention and careful assistance as I struggled to arrange the parts to better see the whole. Last, but not least, thanks to my husband Dennis for believing in me and allotting time for this project.

Chapter 1

Introduction

Farmland located in metropolitan areas continues to dwindle and become fragmented (Daniels, 1999). The causes of loss are numerous and vary across the United States. The conversion is often a result of development pressure from urban and suburban growth (Daniels, 1999). If a farm is located close to urban areas the tension to convert land to residential use increases. In metropolitan areas tensions remain between a variety of growth pressures and policies to control growth and retain natural resource land. In many cases the conversion of farmland to nonfarm use persists despite preservation efforts such as growth controls or tax incentives for farmland owners (Daniels, 1999).

Nationally, data in the United States Department of Agriculture (USDA) agricultural census of 2007 shows a continued trend in the loss of total acres of farmland with a 4% decrease between 2002 and 2008 (USDA, NASS). Regional estimates vary on the type and locations of farmland that is converted annually and do not always clearly delineate whether the loss is in areas that are rural or urbanizing (USDA, NASS). However, in Western Washington the total land in acres dedicated to farming continues to decline. Research shows that in the Pacific Northwest the number one factor in the 21st century inhibiting sustainable agriculture remains to be encroaching urban development (Miles et al., 2010, chap 5.).

There are other pressing factors that contribute to farmland loss. The average age of farmers nationally continues to rise (NASS, USDA). Additionally, the national trend for more very large farms and less people farming as a primary occupation continues

(Gebremedhin, 1998, chap. 1). The current generation of farmers will transfer an enormous amount of land to the next generation in the next decade or two. As owners age and face retirement they are confronted with numerous decisions. There may be a need to scale down an operation, sell investment land for retirement purposes, or pass estate benefits on to heirs. In the bigger picture this represents possibilities for permanent conversion of agricultural land to non-farm use.

There are multiple direct and indirect benefits to society when farmland is preserved. Indirect benefits include the provision of environmental services such as open space, wildlife habitat and flood control. A direct benefit of retaining farmland close to urban areas is the availability of a local food supply that is more resource use efficient by decreasing transportation costs and also supporting the local economy (Gliessman, 2010). Another goal of farmland preservation is to retain a critical level of economic agricultural activity that can support related farm services such as processing, distribution and input supply business (USDA, NRCS). In this case, the direct benefit of farmland preservation is the support of a viable local agricultural industry (USDA, NRCS).

The location of the study is farmland in urbanizing areas of Thurston County Washington. All farmland in the study is located in areas of high development potential and pressure due to its proximity to urban growth area boundaries. Under the Washington State Growth Management Act (1991), each county in Washington State must designate areas of urban growth and delineate the extent of growth with boundaries lines around cities. The act is designed to help mitigate urban sprawl and protect natural resource lands, including agriculture.

Thurston County is situated at the southern tip of the Puget Sound approximately sixty miles south of the city of Seattle and is the home of the capitol seat, Olympia. In the 1970's, Thurston County experienced a 5% population growth that resulted in development at a higher rate than had been seen in previous decades. A steady 2.5% growth has continued in the decades up to 2010 and the county's population is expected to climb over the next ten years (TRPC). The Thurston County area also has a Maritime climate with ample rainfall and moderate temperatures. This makes the region ideally suited for agricultural production (Miles et al., 2010, chap 5.). The landscape in Western Washington is geologically diverse with high mountain ranges and close proximity to the Puget Sound. These same beneficial characteristics also attract urban development creating an impetus for the conversion of forests and agricultural lands to residential use.

This study investigates influences farmland owners consider when faced with decisions regarding preservation of their farm. The research examines the effect that steady urban growth has on the farm community in Thurston County. It is assumed growth pressure is the main factor contributing to any decline in farmland or agricultural activity in the area. The primary aim of this research is to gain a better understanding of farmland owners' motivations to decide in favor or against placement of a farmland conservation easement or selling development rights on farmland located close to urban growth to preserve continued agricultural use.

The research question for this paper originates from the South of the Sound Community Farm Land Trust (SSCFLT) organization's desire to gain an understanding of farmland owners' future plans for their farmland and how these collective decisions will impact the agricultural community. Also, the SSCFLT wants to know if landowners

understand options available in the event they want to place an agricultural type of conservation easement on their land.

SSCFLT identifies four main goals in their 2009-2011 strategic plan. These goals are to 1) acquire farmland and create or enhance a working farm on the site; 2) support local farming and the promotion of local food security in the South Sound; 3) manage and build organizational capacity and 4) mobilize support for the organization's work through education and outreach (SSCFLT, 2009). The organization accomplishes the goal of supporting local farming with the creation of projects that provide direct assistance to local farmers. SSCFLT annually produces and distributes the Thurston County Farm Map as well as assisting the Thurston County Conservation District with acquisition of small farm equipment to be lent as needed (SSCFLT, 2009).

In 2008, the SSCFLT assembled a Farmland Inventory database of total farmland in Thurston County. The inventory was compiled using Geographic Information System (GIS) technology and analysis to define priority conservation areas as well as identify farmland preservation strategies (Thurston County Farmland Inventory, 2009). The Farmland Inventory was used in this thesis to assemble a sample of farmland owners to interview.

The knowledge of contributing influences that guide landowners to protect or convert natural resource land may lead to preservation of more farmland. A close examination of influences is needed to understand how to protect agricultural areas that surround cities. This research will contribute to a body of knowledge concerning views of farmland owners facing retirement and what they perceive to be the best land use choice

for farmland in close proximity to urban growth areas. It is important to highlight factors private landowners consider that play a part in a willingness or unwillingness to preserve farmland. An assessment of these factors contributes to a better understanding of the farmland preservation process.

What follows this introduction is a brief description of the content of each chapter to give an overview of what proceeds. Chapter two reviews literature and looks at historical problems that impact and lead to farmland loss. It also provides background information that reviews methods and efforts to protect farmland to develop the foundation for further discussion of protection mechanisms.

Chapter three examines aspects of Thurston County that pertain to farmland preservation such as population trends, geology and agricultural trends and history. The chapter also reviews current local government planning responsibilities and methods for farmland protection.

Chapter four describes the methodology of the thesis by listing the procedures for collecting and analyzing data. Included in this chapter is the logic for the research design and how the study sample was derived. The chapter also provides insight into definitions of terms such as farmland preservation.

Chapter five describes demographic characteristics of the interview panel such as farm size and primary production type. The thesis analysis was greatly strengthened by uncovering patterns of thinking associated with certain demographics.

Chapter six gives a report on findings with a focus on how respondents view the general benefits of farmland protection measures. Also located in this chapter is a

presentation of specific limitations encountered by farm owners when regulatory growth controls and farmland protection methods, such as critical areas protection and agricultural zoning, are implemented.

Chapter seven defines terms such as purchase of development rights and conservation easements and presents the pros and cons to selling development rights on individual properties.

Chapters eight and nine report the findings and key drivers that motivate farm owners to preserve their farm. Although there are a variety of ways to consider the data these chapters delineate areas of agreement and disagreement that surfaced during the research interviews. What is revealed is a complex matrix of how factors play themselves out in the preservation process.

Chapter ten discusses the implications of the data and provides conclusions and recommendations.

Chapter 2

Literature Review

Farms in urbanizing areas continue to be at risk of disappearing. Remarkably, many of the historical problems and dynamics of population growth as it pertains to farmland retention remain the same today as they were in the 1960's. The problems and advantages of farming at the urban-rural edge are complex. Genuine public support exists for saving farmland and a wide variety of programs have been implemented across the nation to help mitigate urban sprawl and support farms. Yet, the one thing that remains constant over time is the total amount of farmland continues to diminish regardless of preservation efforts.

Urbanization and Farmland Loss

The U.S farmland preservation movement began in the late 1960's as public discourse increased concerning changing patterns of development and subsequent farmland loss (Pieffer & Lapping 1994, Lehman 1995). The general pattern of population flow in the U.S. at this time showed an increasing amount of families moving out of cities and into suburban areas. Settlement in the outskirts of cities, as is the case throughout U.S. history, has been more scattered than orderly, often resulting in sprawling patterns of growth (Schmid, 1968). However, this sprawling growth pattern often adversely affects farmland surrounding cities due to preferential development of flatland for roads, utilities and housing (Lockertz, 1989).

The United States Department of Agriculture (USDA) Soil Conservation Service published a Potential Cropland Study indicating total acreage of land dedicated to

farming activity in 1977. The study showed that a permanent conversion of farmland to urban use had transpired in the decade between 1967 and 1977 at a rate three times that of historical conversions (Jeffords 1984, Lehman 1995, Mariola 2005). It was estimated at that time that the Standard Metropolitan Statistical Areas contain 20% of the nation's prime farmland (Blobaum, 1984). Today, according to American Farmland Trust, these same metropolitan areas are the production sites for 91% of the nation's fruit, 78% of the vegetables and 67% of dairy (American Farmland Trust, 2012).

Farms located in urbanizing areas face development pressures. As urban development increases in an area, land appreciates. Research into rural land conversion in 1968 by Allan Schmid demonstrated a rapid increase in percentage appreciation in lot prices over farm value. A direct correlation was established between the income of earners in an area and land appreciation. As land appreciates, the production value of a farm does not. The production value, or what a farmer can earn by farming, simply cannot compete with the value of residential land. At the same time there are undesirable products that come from a housing commodity in rural outskirts of cities. There are uncomplimentary mixes of uses such as farms and homes, costly utility and transportation services and other environmental factors including displeasing views and lack of open space. Schmid questioned whether the end product was actually dictated by consumers or if demand is frustrated by the structure of the suburban land market. He concluded the public desire for open space amenity is not realized due to strong economic forces.

In addition to economic forces, Tim Lehman, in his book *Public Value, Private Lands* (1995), contends that historically there have been many political and sociological

forces that contribute to scattered development and farmland loss. For example, some federal policies contribute to population growth in the outskirts of cities. Federal programs such as mortgage subsidies and placement of interstate highway systems, inadvertently aided moving to suburbs. The placement of military bases, airports and sewers also serve as examples that involve the federal government directing and having an effect on where people will live. Even federal depreciation laws made it cheaper to build on open land than renovate older cities (Daniels, 1999).

By the 1970's, urbanization patterns had reached beyond the suburbs to the "metropolitan fringe" encompassing edge cities and consuming even more land and space (Daniels, 1999). This "buckshot development" originally thought to be a rural renaissance, instead often resulted in fragmentation of farmland (Little, 1979). Research conducted in 1984 described patterns of development in rural areas to be "bedroom communities" to bigger cities that consists of rural individual development and country estates dispersed among farms (Fletcher, 1984). Farmland that is fragmented, either by bordering nonfarm use or being too small is more susceptible to development pressures (Daniels, 1999).

Today there are many culprits to increased rural residential living and farmland loss including an affluent population that can work from distant locations due to improvements in communication and knowledge-service oriented jobs (Lynch, 2008). Many of the same public motivators for farmland preservation such as green belts and countryside views actually increase residential use (Irwin, Morrow-Jones, Roe, 2004). The same reasons people want to look at farmland encourage urban-rural settlement.

There is increasing evidence that the permanent preservation of land can actually increase demand for housing in close proximity (Irwin, Marrow-Jones, Roe, 2004).

Concurrently, the American public values seemingly contradicting ideas such as preservation of small farms and settlement of rural countryside for residential use. This and other contradictions have been called an “American paradox” (Hawkes, 2004). The place is equally supported where rugged individualism and hard work in farming meets a dog eat dog world of progress and economic development in an independent free market (Hawkes, 2004). As America continues to become a metropolitan nation, land surrounding cities remains a “premiere land-use battle ground” (Daniels, 1999).

Farming at the Urban Fringe-Challenges and Advantages

Farms located in urbanizing areas are confronted with numerous challenges. As more non-farmers relocate to the outskirts the tax base is driven higher, land prices rise and the incentive to sell farmland increases. The opportunities for farmers to expand land base in urban and suburban areas decreases as it is either too expensive or not available. Many crops such as traditional grain and livestock operations need substantial amounts of land, which is not often available in developing areas (Blobaum, 1984). There may be a need to travel between noncontiguous pieces of land leading to reduced efficiency (Daniels, 1999). Reduced efficiency leads to increased production costs and reduction of net farm income. In addition, farms surrounded by residential land use face pressure for an increase in residential zoning, as well as complaints from neighbors regarding unpleasant smells, noise or dust from farming activities (Daniels, 1999). Even though

some jurisdictions have enacted right to farm laws that apply legal action, these laws do not apply to informal complaint pressures (Daniels, 1999).

For every farm that is lost, a process builds upon itself and contributes to further decline of adjacent farms. With a decline in total farm area, farm support services and the agricultural infrastructure as a whole are also diminished. The proportional decline in farming can be much greater than the decline in farmland (Lockeretz, 1989). For example, farms often change to a less intensive and lower value use of farmland such as pasture instead of cultivated crops (Lockeretz, 1989). Over time this may lead to a decrease in processing facilities, feed stores and other farm support services and a reduction in the overall farm economy (Daniels, 1999).

The arguments against farmland preservation typically do not value the importance of retaining farms close to urbanizing areas. The arguments are usually structured under one of three points (Mariola, 2005). The first point is that advances in science will develop seed and farm supplements that can withstand marginal soil, hence technological gain will be a substitute for the lack of fertile ground. Second, as long as a certain amount of food can be produced then it does not matter if it happens on this land or that land; food security is what needs to be protected, not land. Some policy analysts contend there is sufficient agricultural land available and argue against public spending to preserve farmland (Tulloch et al, 2003). Last, farming is a business. If the economic bottom line cannot be met then this signifies that the farmer is not managing the business well and therefore a failing business should not be saved (Mariola, 2005).

Arguments to save farmland are usually centered on the advantages that the public will receive. (Mariola, 2005). Farms build community and people have access to fresh food. Before technological advances in transportation, such as refrigerated trucks and highway systems, the need for farmer proximity to its consumer base was a major factor (Blobsaum, 1984). Today, many areas across the nation have a high level of dependence where most of the food is transported in from outside areas. This creates potential vulnerability in food production as well as high energy and fuel costs. Due to this, public interest in locally produced food has increased over time. There has also been a growing connection between farmland preservation and local production of food (Blobsaum, 1984).

The concept of buying locally produced food has gained strength since the turn of 21st century with the rise in farmers markets and Community Supported Agriculture (CSA) (Gliessman, 2010). CSA farms in urbanizing areas theoretically receive the economic benefit of being close to a large population since they are able to sell directly to their customers which in turn increases profit margin. In general, farms located close to cities are able to be more resource use efficient, reducing fuel and transportation costs.

The preservation of farmland in turn provides benefits to the local area through the provision of a local food economy and though environmental services such as open space (Lynch & Nickerson, 2001). Farmland that is located near cities is valuable to the public not only for a place to grow food but to create a buffer of green space between urban and rural areas (Spellman, 1984). Preserved farmland creates green belts, scenic views and visual breaks. Numerous studies have described the public willingness to preserve farmland not only for a food supply but for the environmental amenities it provides (Kline, 2006). These amenities include watershed and aquifer recharge

protection areas as well as riparian and wildlife habitat protection (Kline, 2006). Most Americans support a means to farmland preservation and it is a cause that is widely repeated as valued (Hawkes, 2004). Loss of farmland in urbanizing areas is especially of public concern due to its visibility (Lynch, 2001). Farmland preservation in urbanizing areas has a sense of urgency to the public due to occurrences and effects of development being easy to see (Pfeffer and Lapping, 1994). This visibility has in turn increased calls to action from communities, policy makers and farmers to address the issue (Thompson & Prokopy, 2009).

Methods Used to Protect Farmland

The strategies used to protect farms and farmland, the *how* of farmland preservation, are not widely agreed upon. Historically there has been controversy over creating a U.S. national policy that governs and directs population growth (Fletcher, 1984). Although a widely supported public view existed in the 1960's that protecting farmland was in a broad national interest, the nation then could not agree upon a coordinated federal policy to guide population growth (Lehman, 1995). For those who supported a national policy, the assumption was if the country can control growth then agricultural lands would be preserved and the loss of farms would stop. According to historians, many people felt it was in the nation's best interest to preserve farmland for food and fiber and mitigate burdens of urban sprawl. A national policy would help alleviate inconsistencies that arise at the local level as well as the desire of local government to try to minimize expenses and maximize tax base thus promoting growth and development (Lehman, 1995).

However, there were also many critics of how best to direct the distribution of growth and strong opposition existed to the federal government having controls on private land (Lehman, 1995). Critics felt the federal government should not take a lead role in local planning decisions and that local areas know the farming circumstances best and are much more suited to make decisions in regard to retaining agricultural lands (Jeffords, 1984). In the end, America's history, tradition and value against national policy governing private land superseded the need for a national growth policy (Lehman, 1995).

Today, most states leave land use planning and farmland preservation to regional and county agencies (Tulloch et al, 2003). The role of the federal government is to minimize other federal policies that inadvertently contribute to farmland loss as well as provide funding to state and local areas to retain farmland (Lehman, 1995).

Farmland preservation strategies have been designed and implemented in local areas since the late 1970's. A variety of direct, indirect, voluntary and regulatory approaches designed to support farming enterprises exist. There are four powers available to state and local governments in an effort to retain farmland: taxation, regulation, acquisition of interest, and spending power (Keene, 1984). Programs include preferential farm-use tax, right to farm laws, agricultural zoning, growth management laws, purchase or transfer of development rights (PDR and TDR) and agricultural conservation easements. States and county agencies may use a combination of programs. An overview of voluntary and mandatory methods to protect farmland follows.

Taxation. A commonly cited cycle of farmland loss due to urbanization begins with growth at the edge of cities that leads to increased farm values and higher assessed

property values. Higher values lead to increased property tax and decreased profitability from farming. The cycle ends with increased land sales that lead to more urban sprawl (Dunford, 1979). The rationale for farm property tax relief programs comes from a desire to mitigate effects of urban sprawl and reduce any pressure that taxes create to convert farmland (Dunford, 1979).

There are a variety of terms used to describe the taxation method including current-use, use-value, preferential taxation or differential assessment taxation. The program is used to calculate tax on an agricultural use of property as opposed to a standard real estate assessment for property taxation based on “highest and best” use (Dunford, 1984). Current-use tax is based instead on the production value of the farm or what a farmer can earn by farming. The program can be viewed as compensation to farmland owners for maintaining a socially desirable land use (Blewett & Lane, 1988).

Use-value taxation began in the 1950’s and is widely used today across the United States. In 1976, forty-two states were using a version of the program (Blewett & Lane, 1988). Today, all fifty states enact some form of preferential taxation (Duke & Lynch, 2007). The enrollment in the program is voluntary and usually requires that the property not change land use for a certain amount of time, typically ten years. The farm owner is obligated to pay a penalty if the land use changes, usually the amount of tax saved throughout participation.

Arguments exist that the tax incentive still cannot effectively counteract development pressure. Agricultural land can be lost when annexed into a city or incorporated to create a city (Spellman, 1984). The impacts of the program may be small

or short term often due to zoning changes or provision for local and regional housing needs to accommodate growth (Liu and Lynch, 2011). The criticism is that the program helps but it is a modest reduction in production costs and only delays or slows farmland loss but does not prevent conversion to developed use (Blewett & Lane, 1988, Tulloch et al., 2003).

Regulation-Growth Management Plans and Zoning. Incentives for regulatory growth controls often come about with the desire to mitigate sprawl and decrease farmland loss. Most pressure in the urban fringe area comes from two markets, developers and farmers. One is able to pay a higher price for land and one lower. This inequality leads areas to enact state-wide comprehensive growth management plans that include zoning in a desire to protect agricultural land and environmentally sensitive areas from development and to guide development (Keene, 1984).

Local governments have spending power that can be used to preserve farmland. Services such as transportation and sewer and water supply can be directed away and channeled from farmland into desirable growth areas. However, problems arise with arguments that no police or regulatory power can withhold services, such as water or sewer, to new housing development areas even if the growth is far from a city center. Comprehensive plans that delineate dedicated areas of growth help alleviate problems of this nature (Keene, 1984).

Agricultural zoning is a regulatory approach that localities can use to place protection on farmland. The idea is to prevent subdivision of land to minimize development and conflicting uses. Without strict zoning farmland becomes parcelized

and farmers cannot operate at optimal scales (Pfeffer and Lapping, 1995). Often the goal is to retain big blocks of land to maintain a critical mass of agricultural economy by preserving productive and profitable farmland (Daniels, 1999).

There are legalities and flaws associated with zoning for farmland preservation. One concern is that zoning regulations are not permanent and local authorities can cancel agricultural zoning if landowners complain about lack of compensation (Daniels & Bowers 1997, Lynch, 2008). The argument against agricultural zoning is that value is reduced for the land owner and often is viewed as a constitutional taking. Certainly not without controversy is the fairness of downzoning land without compensating owners (Cordes, 2005). Whether the restriction is exclusive agricultural use or minimum lot sizes, either way there is a reduction in market value of land because the land is limited (Keene, 1984).

The first zoning enabling act drafted was in New York in 1914. The Standard Zoning Enabling Act (1926) gave municipalities the authority to issue specific land use designations and zoning changes. There was a case in 1968 where an owner argued a 60% decrease in value when zoning changed from commercial to residential. The court looked at the comprehensive plan and found substantial development planned and ruled in favor of owner. If zoning is not properly authorized and in accordance with comprehensive plan then it may be a constitutional taking without just compensation. The basis is the interpretation of requirements of the Fifth Amendment to the United States Constitution "...nor shall private property be taken for public use without just compensation." It was realized at the time that a comprehensive plan is essential. A

comprehensive plan is the essence of zoning and provides a rationale for land use (Keene, 1984).

Any area that wishes to enact farmland preservation and use zoning must be properly authorized and have a comprehensive plan and the zoning must be in accordance with the comprehensive plan (Keene, 1984). This prevents the risk of a property owner arguing a loss of value due to a zoning change (Keene, 1984). County commissioners may have jurisdiction (the authority to make and deal with legal decisions) over unincorporated areas including zoning. The plan should analyze trends in agricultural use, establish the importance of farming to the municipalities' economy, include soil and open space studies, review state and regional policies on farmland preservation and look at other factors considered in a traditional growth management study (Keene, 1984). Sound ecological, economic and demographic data is needed as well as careful articulation of state and local agricultural policies (Keene, 1984). Under growth management laws, a governmental agency, whether regional, local or state can also create agricultural districts upon petition of a certain number of farmers in a particular area (Keene, 1984).

The problem with zoning is legal doctrines surrounding the issue are in a state of flux and none are completely satisfactory (Keene 1984, Cordes 2005). Since the 1970's local governments have been less likely to use zoning powers to protect farmland and restrict residential or commercial land use. Nonetheless, many states have legislated growth management controls, for example the Washington State Growth Management Act (1991). According to the American Farmland Trust, 12 states have laws that control

growth and set standards for local governments to follow, many of which include farmland protection (Farmland Protection Toolbox, 2011).

Acquisition of Interest. As an alternative to zoning, the idea of purchasing development rights surfaced in the 1970's as a technique to protect farmland in urbanizing areas (Daniels & Bowers, 1997). A property owner forgoes the right to future development in exchange for monetary compensation. Development rights are sold to a government agency or nonprofit group that holds a lean or restriction on the deed in perpetuity (Spellman, 1984). The property remains in private use and all other rights remain intact such as air, mineral, water and the right to use and sell. Only the right to develop is encumbered (Daniels & Bowers, 1997).

The value of each development right is determined using two separate assessments of the land value. The difference between the farm use value and the market value is the value of the development right. The remaining value is the "farm use" (Spellman, 1984). The price of the rights is a reduction in the market value of the land as a result of the removal of development rights. The theory states that the farmland remains affordable at farm use value for the sale to future farmers and a supply of farmland is maintained (Gustanski and Squires, 2000).

In 1979 King County, in Washington State, was the first county in the United States to approve a purchase of development rights (PDR) program in a general election (Spellman, 1984). Officials established an ordinance for voter approval to purchase development rights on farms in the Seattle (King County) metropolitan area. It was seen as a permanent solution to stabilize the farm community. This voluntary program was

considered effective and a good use of public funds when applied in areas of high growth rate and development pressure (Spellman, 1984).

Arguments for the PDR program arise when the differential between market value substantially exceeds farm use value. Flat land in proximity to large cities is valuable to developers and builders. In an urban area where open space amenities are rare PDR is more justifiable whereas in rural counties the method can be costly and may protect land that is not at risk of being developed (Kartez, 1984, Liu and Lynch, 2011). It is usually not rural amenities that are being preserved if PDR is the method (Lehman, 1995). PDR is best used in conjunction with comprehensive plans to counteract negative effects of urban sprawl (Pfeffer & Lapping, 1994).

PDR has emerged as the farmland preservation approach most often taken (Pfeffer and Lapping, 1994). It has recently been estimated that 80 governmental entities have implemented PDR programs in the U.S. The effort has preserved approximately 2.23 million acres at a cost of \$5.47 billion having a significant effect on farmland loss (Liu and Lynch, 2010). However, the downside of a PDR or easement approach entails high public costs per acre of farmland preserved. The challenge is to be efficient with limited funds and simultaneously reach the goal to minimize farmland loss or maximize conservation assets (Storms, Kreitler, Davis, 2009).

Transfer of development rights (TDR) has had limited success across the nation. In an effort to retain farmland, development rights are transferred from farmland and purchased by developers in an urban area with the benefit of developing at a higher density than zoning regulations permit. The problem is there has not been enough

participation in sending or receiving areas (Price, 1981). There are only two examples within the US, one in Maryland and one in New Jersey, where a TDR program has worked. In both cases the transfer happened in heavily population areas with strict zoning regulations (Tulloch et al., 2003).

Land Trusts have also stepped in to alleviate the problem of farmland loss by buying or holding in trust conservation easements to protect farmland (Gustanski & Squires, 2000). Several programs are available that convert land based wealth into cash by agreeing to permanently preserve farmland in the form of a conservation easement. For example, the USDA Farm and Ranchland Protection Program works in tandem with property owners and local land trusts to restrict development by purchasing development rights and placing conservation easements on farmland.

There are many reasons to conserve farmland in urbanizing areas including the preservation of a local food economy, creation of green space that is visually appealing to the public and environmental benefits such as the provision of wildlife habitat and flood control. There are a variety of strategies used to preserve farmland yet the loss persists. More studies are needed to find out what are the factors that farmland owners in urbanizing areas consider when they are faced with preserving their own farmland. What makes owners willing or not willing to preserve their land?

Chapter 3

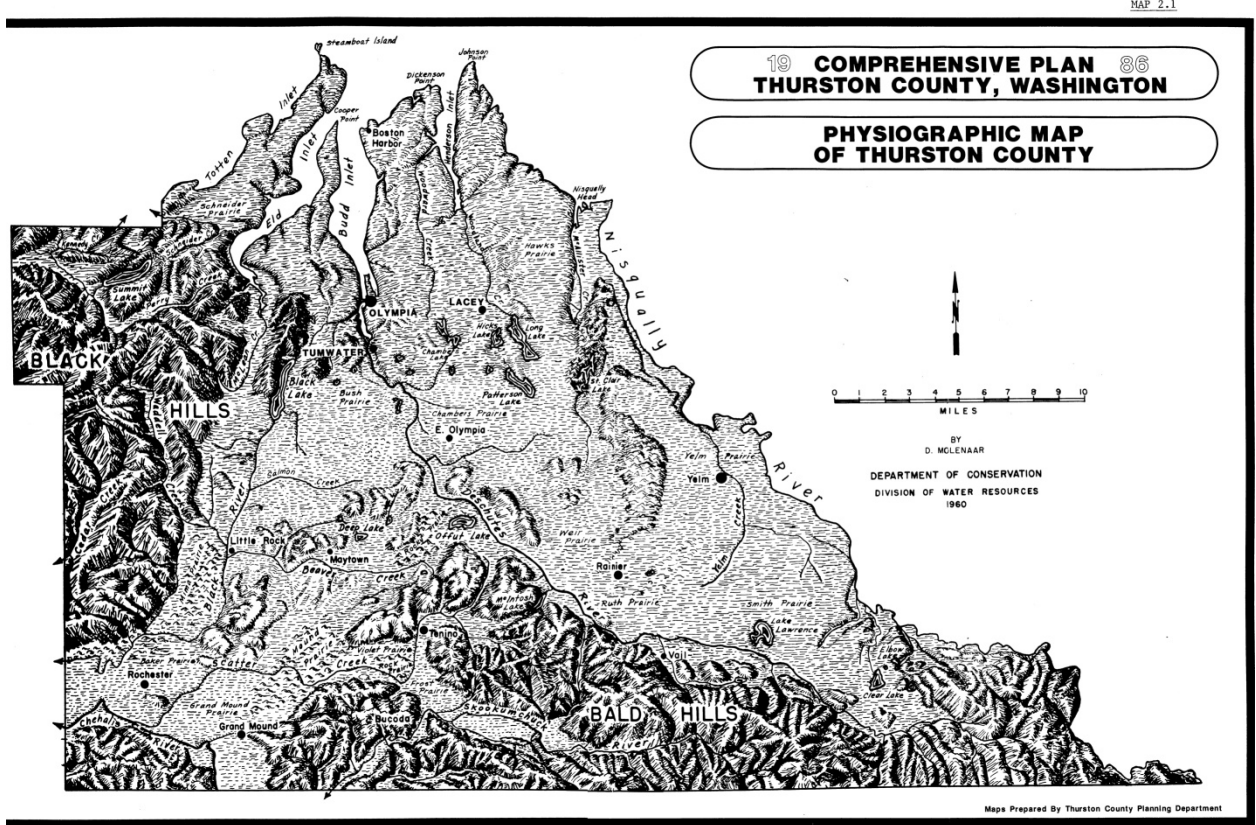
Location of Study

A description is provided in this chapter of the geography and climate of Thurston County. Also included are statistics on population growth, farms in acres, and total value in agricultural production as compared to other counties in the state. Finally, the methods to protect farmland in Thurston County are covered to illuminate what steps have been taken to retain farmland in the area. The following geographic description is provided as context to help the reader understand the physiographic elements of the region that pertain to agriculture. The description helps define the land resources and the agricultural potential of the area.

Physical Description of Farmland

Thurston County is located at the southern tip of the Puget Sound in Western Washington State. The area is a formally glaciated region that is comprised of rolling prairies, forested land and numerous lakes, streams and rivers. A series of inlets and peninsulas define the narrow northern tip of the county. The Nisqually River marks the northeastern border that separates Pierce County to the east. To the south lay the Bald Hills, an extension of the Cascade foothills and originally the southern barrier of the Vashon Glacier (Wiedemann, 1976). Lewis County borders the southern end of Thurston County. The Black Hills bound the western edge bordering both Mason and Grays Harbor Counties. The Black Hills are an extension of the Olympic Mountain range (Figure 1).

Figure 1. Physiographic Map of Thurston County



Source: Thurston County Comprehensive Plan (1986). Produced by the Department of Conservation, Division of Water Resources (1960).

Thurston County is described as a basin at the southern end of the Puget Trough. There are three major river systems that drain most of the county (Noble & Wallace, 1966). Two major rivers, the Nisqually and the Deschutes drain northward into the Puget Sound. There is one major coastal draining river system comprised of the Black and Skookumchuck Rivers and Scatter Creek that all flow into the Chehalis River that travels to Grays Harbor on the Washington Coast at Aberdeen. The Vashon glacier extended 20 km south of Olympia to present day Tenino (Wiedemann, 1976). When the glacier retreated approximately 14,000 years ago, it left random deposits of rocks, clay soil, and coarse materials. The glacier also left depressions as the ice melted causing kettle lakes, wetlands and bogs with poor drainage.

The maritime climate in Thurston County is characterized by mild wet winters, dry summers and moderate year round temperatures. The average rainfall at the Olympia Airport is 53.51 inches and 38.66 inches in Yelm. The Chehalis River valley provides an opening for more rain in Olympia whereas Yelm resides in the shadow of the Black Hills (Wiedemann, 1976). The soils on the Yelm prairie are black and coarse in texture preventing retention of water. The soil is not as fertile and productive retention as originally thought (Noble & Wallace, 1966). The irrigation district in Yelm failed in the 1940's due to heavy seepage, no retention of water, and a long distance for water to travel from the Nisqually River to fields. It was determined to be a better use of resources to use ground water (Geology of Thurston County, 1966).

In general, Thurston County is comprised of hills with timber lands, valleys with rocky soil due to the retreat of glaciers and river acreage. Much of the county farmland along rivers is in direct competition with residential development.

Rate of Population Growth

Due to steady population growth and many residents seeking a life in rural settings, pressure to develop unprotected farmland continues to increase. Thurston County covers 722 square miles or approximately 462,000 acres. In acres, it ranks seventh from smallest to largest out of 39 counties in Washington State. Although it is small, the county ranks sixth from high to low in population density with 350 people per acre (OFM). It is characterized as a metropolitan area with a population of approximately 252,000 representing 4% of Washington State's population (TRPC). In the county, 44 % of the population resides in the Olympia, Lacey and Tumwater areas.

Urbanization and Farmland Loss in Thurston County

Due to urbanization there has been a decline in farm acreage over time. Discrepancies exist as to how many acres of land are currently in agricultural use in Thurston County. According to the USDA statistical service in 2007 there were 80,617 acres, an increase from the prior census at 74,442 acres in 2002. The increase is likely due to the exclusion, prior to the 2007 census, of farms less than ten acres in size. A much lower estimate based on actual parcel characteristics using GIS technology is 68,247 acres of land currently farmed in Thurston County (Thurston County Farmland Inventory, 2009). According to a study in Illinois, the spatial analysis supports trends shown by the Natural Resource Inventory that indicate farmland is being converted at a higher rate than is reported by the Agricultural Census (Thompson & Prokopy, 2007).

There has been a continued loss of open space and working lands in Thurston County. According to a satellite image based study titled *The Rate of Urbanization and Forest Harvest in Thurston County 1985-2000* conducted by Thurston Regional Planning Council (TRCP), an estimated 32,000 acres of forest land, farmland and shrubby vegetation was converted to non agricultural use between 1985 and 2000. The bulk of the conversion happened on forest land and outside of urban growth areas (TRCP). This total amount of acreage converted is nearly the same amount of land currently enrolled in open space agriculture in 2011 (TRCP). The conversion of specific parcels of farmland out of open space agriculture is not recorded and tracked. Instead Thurston Regional Planning keeps records of total acreage of farmland by year that is in current use status.

Following national trends, the average age of farmers in Thurston County is 57 years old (USDA, NASS). Theoretically many are looking ahead to transition out of farming subsequently posing a risk for the loss of more farmland. As farmers age they are faced with estate planning and succession decisions. These personal choices are complex and consist of many factors. A farmland owner may keep land in agricultural use either through transfer to a family member willing to farm, sale to a willing buyer with the intent to farm or establishment of a conservation easement to protect a natural attribute such as riparian area or grassland. In the same vein owners may choose to work with a land trust to hold in trust an agricultural easement. Other decisions to sell may be primarily economic in nature that is to sell at the “highest and best use” market value without retention of agricultural land as a goal.

One indicator of change in Thurston County agriculture is the loss of commercial operations. According to the Thurston County Working Lands Report (2010), between 1995 and 2008, the number of dairies decreased from twenty-one to nine. Dairy farms have been an agricultural mainstay in the area. Historical data indicates in 1939 there were 1,995 dairy farms (Geology of Thurston County, 1966). The number of poultry operations has also decreased since 1995 from five to one (Thurston County Working Lands Report, 2010). Last, a decline in processing facilities for peas and corn and slaughter services also occurred between 1995 and 2008 (Thurston County Working Lands Strategic Plan, 2009). Much of the commercial production of vegetables previously in alluvial soil river valleys has relocated to places in Eastern Washington such as the Columbia Basin Project (Miles et al., 2010).

Still working lands create a great deal of economic activity in the county (Thurston County Working Lands Report, 2010). The total value of agricultural products sold per year is approximately \$118 million (USDA, NASS). Thurston County ranks third in the state for total agricultural value of production in poultry and eggs as well as nursery, greenhouse, floriculture and sod (USDA, NASS). The county ranks in the top ten for the dollar value of production in aquaculture, dairy products and livestock such as hogs and pigs (USDA, NASS).

Thurston County Farmland Protection Methods

The Washington State Legislature passed the Open Space Tax Act in 1970. The Act reduces property tax on qualifying farmland in an effort to prevent conversion to development due to unaffordable property tax. The open space agriculture or current use agriculture tax program has been available to farm owners in Thurston County since the early 1970's and enrollment is voluntary.

In Washington State the Growth Management Act (GMA) was passed in 1990 and initiated in 1991 (RCW 36.70A.020). Each county is required to prepare a comprehensive plan to protect natural resource areas including agriculture. There are many goals of the GMA, included here are those that pertain directly to agriculture. The purpose is to coordinate and plan growth to protect the environment by promoting a wise-use of land in the public interest and to simultaneously sustain economic development. Each comprehensive plan must promote public involvement, propose extents of land use and designate growth areas. Overall goals are to reduce sprawl and encourage growth in urban areas where adequate services and facilities exist. Another goal is to encourage

productive agricultural land and business and discourage incompatible use thus preserving natural resource industries including farm economy, historic lands and structures.

Agricultural lands of commercial significance were designated in Thurston County in 1991 and low density zoning designation were applied (Thurston County Planning). Agricultural zoning has been used in Thurston County to protect large contiguous areas of farmland and put boundaries on residential and commercial growth. Farm communities are restricted due to zoning regulations from developing at a rate of more than one dwelling per twenty acres. In flood zones the dwelling requirements are one per forty acres. In theory, this preserves the area as open space that will not be converted to denser development.

Thurston County has applied another voluntary method to preserve farmland. The Planned Rural Resource Development (PRRD), also known as cluster development, is a land use planning tool or zoning mechanism wherein land is subdivided and a resource parcel is designated at 60% (in Thurston County) of the total acreage in exchange for an increase in development density on the remaining 40% of the property. The design is more attractive and the infrastructure for water and sewer is less costly than traditional development. Essentially, a land owner is exchanging future development rights based on the current zoning to develop at a higher density in one area in order to leave as much space as possible open in the form of a resource parcel. The incentive to land owners is they are able to convert land value to cash concurrently retaining a large resource parcel for farming.

A moratorium was placed in 2004 on continued PRRD or cluster development due to appeals and citizen complaints. Depending on if the original design is large, with one hundred lots on three hundred acres or small with two lots on eight acres, the large size of development at 40% of the total becomes problematic in rural areas. A case in point in Thurston County is the *Field of Dreams*, which is a large cluster design with development too dense to remain rural in character. According to a Thurston County task force report, clustering gives the opportunity to preserve more critical areas and open space yet the design must be limited in size to be in compliance with GMA regulations.

The Thurston County government enacted an ordinance in 2011 to buy development rights on qualifying farms. The purchase of development rights (PDR) program works in tandem with land owners, county government and conservation organizations such as the National Resource and Conservation Service (NRCS) or nonprofit land trust with the intent of preserving farmland as a social benefit. Development rights are purchased and restrictions for development are placed on the farmland.

Many methods have been employed to preserve farmland in Thurston County. Still evidence shows the number of commercial agriculture operations have declined in the previous decades. Farm owners are getting older and will make decisions in the next decade or two concerning the future land use of their farms. In addition, a description of the county physiographic area shows that it is scenically diverse with many rivers, lakes, rolling prairies and hills. It has attributes such as a mild climate with plenty of rainfall that make it suitable for agricultural production while simultaneously generating high

demand for residential development. Overall, these competing factors pose a continued risk for agricultural lands to convert to non-agricultural use.

Chapter 4

Methodology

The following methodology was developed to gain a greater understanding of farmland owners' views and attitudes toward farmland preservation and whether owners plan to keep their land in future agricultural use. This thesis developed the following methods to answer the willingness factors that impact farm owners' decisions. The study also investigates which methods owners view to be the best strategies to preserve farms in the Thurston County area. Do owners support regulatory programs such as zoning or growth management plans? Or are farm owners more inclined to support measures that are market-driven, either to promote economic activity or provide an economic incentive such as the purchase of development rights.

Research Question

The purpose of the study is to determine various factors important to farmland owners that contribute to decisions in favor or against the preservation of their farmland. What is the level of willingness among Thurston County farmers to conserve their farmland for future generations? The South of the Sound Community Farm Land Trust (SSCFLT) is an organization committed to preserving farms in the South Sound area. The research question originates from the organization's desire to understand in greater depth the prospects for farmland preservation in Thurston County. The study seeks to determine farm owner's preferences for preservation and the further implications of this to the SSCFLT organization so they may better assist in preserving farms in the region.

The study design takes into account two assumptions. First, the average age of farm owners in Thurston County (57) implies owners will make succession or transitions decisions in regard to their own farm or farmland within the next 10 to 20 years. Second, a close proximity to an urban growth area (UGA) can theoretically lead a farmland owner to disinvest in the farm operation with the belief that the UGA will expand in the future. The results of spatial analysis conducted for SSCFLT of the proximity of farmland to UGA boundaries concluded that 75% of the total farmland in Thurston County is located three miles or less from an UGA boundary (Thurston County Farmland Inventory, 2009). It is assumed there is more of an incentive to sell land in close proximity to urban growth due to a subsequent higher density zoning and an increase in land value.

In the context of urban growth leading to a greater loss of farmland, this study was conducted to understand in depth how farmland owners in urbanizing areas view preservation methods and whether they would participate in programs designed to preserve farmland. The scope of the study is limited to farms three miles or less from an UGA boundary, including farms within growth areas. These farms are perceived to be more at risk of conversion due to a higher degree of development potential. It is hypothesized that farmland owners whose land is located in areas of high development potential (within, adjacent to or up to three miles from an UGA boundary) are less likely to “limit” or “tie up” their land in the form of a conservation easement or other methods to forgo development rights. The assumption is based on economic considerations the owner may take into account assuming a higher market value of land sold at a future date. It is this attitude, this knowledge of reasoning either in favor or against farmland

preservation under these circumstances and conditions that the study is seeking to understand in greater depth.

Method of Investigation

To understand how farm succession decisions are made two research methods were used to gather quantitative and qualitative data. First, a structured questionnaire (See Appendix A-Questionnaire) was administered to gather data to answer the following questions: 1) What are farmers' attitudes toward farmland preservation; 2) Are farmland owners willing to sell development rights or donate a conservation/agricultural easement to keep land in agricultural use? 3) Are owners willing to sell to a land trust? Additional data to ascertain the level of familiarity regarding farmland conservation easements and farmland preservation strategies such as Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR) was gathered. Specifically, do farmland owners support market-driven measures such as PDR programs to preserve farmland or are they inclined to support regulatory measures such as zoning or a combination of both regulatory and market-driven strategies? The questionnaire also serves to introduce the thesis topic to farmland owners.

The questionnaire has eleven questions and four topics as described in the previous paragraph. The questionnaire is designed using a Likert scale to rank the strength of responses to statements. A Likert scale positions responses as follows: strongly disagree, moderately disagree, slightly disagree, slightly agree, moderately agree and strongly agree. According to research, one advantage of using a Likert scale is that respondents must choose to agree or disagree with statements, thus forcing a decision

(Slater and Garau, 2007). The ranking helps to determine the strength of the commitment either as very strong or very weak. One disadvantage of using a Likert scale is the results of the questionnaire might be biased toward extremes or the wording of the questionnaire can introduce bias. For example, the term “strongly agree” can mean different things to different people (Slater and Garau, 2007).

Second, open-ended interview questions were constructed to uncover nuances that contribute to views and attitudes about farmland preservation (Appendix B-Interview Questions). Questions were designed to discover specific factors contributing to a willingness or unwillingness attitude to preserve a farm. The research design helped to reveal motivating influences behind decisions adding qualitative data to the analysis. The content of the open ended interview questions covered topics that pertain to the farmland owner’s outlook on farmland preservation, conservation easements, and farm transition. Data collection included farm demographics such as size, production type and length of time farming. Also included are descriptions of interest and critiques of farmland preservation and how owners came to their views as well as what would tip the scales for them to preserve or not preserve their land. Owners were asked to describe any planning they have done regarding farm transition or estate planning. Last, preferred methods and reasons for farmland preservation specifically in Thurston County were queried.

Procedure for Gathering Data

Recruitment for the farm survey was conducted using a database developed for and managed by SSCFLT. The database entitled *Thurston County Farmland Inventory* was assembled in 2009 to determine an approximate supply of farmland in Thurston

County. The Excel document contains data gathered using over thirty geographic information system (GIS) data sets managed by different local and state agencies. Data from public records such as the Federal Census of Agriculture is also in the inventory. The *Farmland Inventory* database is used for research, academic and planning purposes only and is managed in accordance with all data sharing agreements and associated restrictions.

The methodology used to prepare the *Farmland Inventory* consisted of utilizing Thurston County parcel data as the base and then to systematically add or remove parcels depending on different attributes. A summarized description of the methodology for the inventory is provided here only as it pertains to this thesis. The following parcel data was removed from the *Farmland Inventory*: parcels incorporated in cities, publicly owned parcels, parcels associated with large-scale commercial forestry or mining, parcels less than five acres in size or having a value of over \$15,000 per acre (value too high for farming) and parcels outside of NRCS tier 1 and tier 2 soil types for prime soils. The following parcel data was added to the inventory: all parcels enrolled in Thurston County Open Space Agriculture tax program, parcels previously removed due to being less than 5 acres in size or with a high land value were added back after a cross check with lists of farms from public documents such as WSDA or Thurston County Farm Map.

Land cover types by ownership were then determined using satellite imagery taken by the National Oceanic and Atmospheric (NOAA) Coastal Change Analysis Program (C-CAP) land cover data. In the (NOAA) satellite imagery, Thurston County land cover types are broken into twenty-one categories. For ease in use during preparation of the *Farmland Inventory*, the land cover types were consolidated into seven

categories. The categories are as follows: developed; agriculture; forests; wetlands; shoreline; open water; and bare land. After a visual inspection for agricultural activity or potential agricultural activity, parcels were added back to the *Farmland Inventory* or removed depending on agricultural potential. The overall goal of the *Farmland Inventory* was to identify lands suitable for farming, either currently or in the future, thus the inventory includes parcels with agricultural potential but not currently being farmed

To derive a sample for this study, the *Farmland Inventory* was utilized to select landowners who own agricultural parcels. To disaggregate the data and filter through to find current agricultural land ownerships, the first step was to view the Excel database and find all farms that fell into the category of “agriculture”. The land ownerships for “agriculture” were selected and all other land-use categories, including aquaculture, were discarded using an Excel custom sort. The original number of parcels in the inventory is 3,338. After selecting for “agriculture” there remained 1,571 parcels (Table 1).

To further narrow the focus of the study, the next step was to remove all parcels in the CODE 2 category that are “designated forest” or “current timber”. The CODE 2 category is designated by Thurston County as a current use program for tax assessment purposes. The removal of these lands dropped the inventory by 223 parcels to 1,348 parcels (Table 1). The key in finding owners to interview was to limit the study to the number of owners and not the number of parcels or amount of land. There were many instances of the same ownership with different parcels. The next step was to then remove duplicate owner names attached to different parcels. This action decreased the sample from 1,348 parcels to 668 ownerships (Table 1).

Table 1. Number of Agricultural Ownerships Currently Farmed

Action	Parcels	Total Number of Farmland Owners
Total Parcels in <i>Thurston County Farmland Inventory</i>	3,338	
Agricultural production as seen through NOAA Pacific Coast Land Cover GIS Data	1,571	
Filter to remove “designated forest” & “current timber” parcels	1,348	
Remove duplicate owner names	1,348	668

Source: Thurston County Farmland Inventory, 2009. Inventory was conducted for South of the Sound Community Farm Land Trust with a grant from the Bullitt Foundation.

Data was further sorted to select for farms located in areas of medium to high development potential, located three miles or less from an UGA boundary. This lowered the sample size from 668 to 509 ownerships (Table 2).

Table 2. Number of Farm Ownerships Three Miles or Less from an UGA Boundary

Distance of Farmland to Urban Growth Area Boundary in Miles	Number of Farmland Owners
Within	50
Adjacent	31
1 mile	164
3 miles	264
Total	509

Source: Thurston County Farmland Inventory, 2009. Inventory was conducted for South of the Sound Community Farm Land Trust with a grant from the Bullitt Foundation.

Each of the 509 farmland owner names was assigned a number. A random ordered sample was then generated using an Excel function. Landowners were contacted by phone to request an interview. Forty-seven out of 127 people contacted agreed to an interview. If they agreed to participate, they were given a choice of completing the interview by phone or in person. A research preference for interviews in person was

indicated to each participant. The goal was to continue collecting data until emergent themes were saturated or complete the number of interviews possible by the end of June of 2011. Forty of the interviews took place in person and seven were conducted over the telephone. The location and distribution of farms in the sample was as follows: Sixteen farms were located in the Olympia/Lacey/Tumwater area; nine in Tenino; eight in Yelm; eight in the Rochester/Centralia area and six in Rainier. All interviews were scheduled between February and June of 2011.

During the interviews, each person was asked to first complete the questionnaire and then add a narrative account in the form of an audio interview (see Appendix A&B for the questionnaire and a list of interview questions). Each interview began with a brief introduction to the study, an informed consent agreement that offered to keep identities confidential and views anonymous. Permission was requested to turn on the audio recorder as participants filled out the questionnaire in the event questions or comments were triggered by the information. Participants were instructed to ask questions or get needed clarification. Some participants led the interview content to a degree based on what they knew of the scope of the study either through information given over the phone or commentary triggered by completing the questionnaire. Other participants preferred to approach the interview by answering questions in the scripted order.

Early interviews were conducted as a pilot study. According to methodology of qualitative interview studies, things almost always turn out to be different than expected. Thus it is important to develop questions based on experience rather than what is surmised (Weiss, 1994). Initial understandings constructed from the first seven interviews, led to alterations in the questionnaire and interview questions. The

adjustments were of minor consequence and were only used to clarify questions. Data from the pilot interviews was kept within the final analysis.

This study is primarily concerned with why some farms are preserved and others are not. It was clear from the beginning of the interviews that *farmland preservation* meant different things to different people. Participants were asked to describe any interest they have in farmland preservation, either for their own land or farmland in general. As to be expected, the responses fluctuated between theoretical to concrete scenarios as well as comments of interest at a national level to a local level.

A general discussion of the topic of farmland preservation was followed by asking participants whether they would preserve their own farm. At this point, many asked for clarification of the term *preservation*. They wanted to know what the meaning was in this context. Does preservation mean they will not sell their farm for development? Is the goal of preservation accomplished if they are enrolled in the “Current Use Agriculture” taxation program? Does the term imply a certain length of time and if so, how long? Is it one generation or in perpetuity? Most importantly, is preservation contingent upon selling development rights?

Based on the questions participants brought forward during the research process a working definition was simplified to encompass how participants perceived preservation on their own farm. The term farmland preservation was described in general terms as farmland that will be kept in agricultural use and not developed for residential or commercial purposes. Whether or not this was accomplished by placing restrictions on the farmland, such as selling development rights was inconsequential. The amount of time a farm owner would commit their land to agricultural use was also left open for the

interviewee to determine. Due to the complexities of different farm circumstances and variation within the interview panel, it was better to leave the terminology undefined in an attempt to extract views of the farm owner.

In this study the terms purchase of development rights (PDR), farmland conservation easement, farmland easement, and agricultural conservation easement are used interchangeably. If one term was not recognized by an interviewee then another term was used or a description of the concept was provided. In some instances a respondent was not familiar with conservation easements specifically for agricultural purposes and wanted clarification. The concept of *conservation* was often viewed as land that would “go back to nature” as opposed to having a production value or being actively worked. The term *easement* as a property right was understood and in a few cases conjured negative property issues such as arguments over access to property and the care and use of access.

In the process of investigation owners described different types of conservation easements available to them. The types of conservation easements included easements designed to preserve *working lands* such as rangeland, grassland or timber and other types to protect sensitive lands such as wetlands and riparian areas. Analysis of sensitive area protection easements is described in the study, when applicable, to add to the complexity of farmland preservation. These programs are included in the analysis as owners forgo rights to develop, either commercially or residentially, with placement of a conservation easement.

Procedure for Analyzing Data

All interviews were transcribed and then coded for specific concepts, phrases and themes. The coded information was used to construct categories. Initial categories were constructed consistent with an *issue focused analysis* that highlights what the summation of views was on a specific issue as opposed to a case by case analysis of nuances (Weiss, 1994). The five categories that surfaced were as follows: 1) farmland preservation; 2) economic aspects of farming; 3) soil and geographic descriptions of land including surrounding development; 4) government regulation and 5) specific attributes of farming in Thurston County. The next step was to find relationships among themes and implications of these relationships. For example, the willingness to preserve land was compared in the context of geographic descriptions farm owners gave of their farmland, such as soil type or surrounding development. The construction of categories serves to convey broad themes that are examined further in the analysis.

In an effort to further understand the predominant issues at hand, background and demographic information was summarized about the interview panel as a whole. The framework created provides contextual information regarding farm ownership circumstances in Thurston County that inform decision making. The information can be used to understand more clearly the factors that influence farmland owners' attitudes on willingness or unwillingness to sell development rights or place a conservation easement to preserve farmland.

To determine why a farm owner would or would not preserve their own farm, a typology was developed that categorizes the reasoning interviewees gave in favor or

against preservation of their own farmland. Responses did not come across in a clear straight-forward manner where people either agreed or disagreed with preservation of their own farm. Farm owners gave multiple reasons in favor and against preservation of their own farm and in some cases owners were even conflicted. Due to the complexity of the issues, interview data was reviewed numerous times to determine the main reason farm owners would or would not preserve their farm and the strength of the reasoning.

An investigation was conducted of factors that support willingness or unwillingness decisions. What are the main reasons or factors given that support decisions to preserve or not preserve farmland? For example, was it a government program in place that was favorable or unfavorable to farmland preservation or some other factor? Since respondents often gave more than one reason to preserve, the strength of the reasoning was considered. The reasoning was considered weak, for example, if respondents listed several conditions that would need to be in place before they would preserve their farm. The reasoning was categorized as strong if participants were strongly in favor and did not hesitate or list a single situation that would prevent them from keeping their farm. In rank order, the categories of main reasons in favor of preservation are as follows: conservation values; family heritage and economic considerations. Also in rank order, the categories of main reasons against preservation are as follows: economic considerations; geographic considerations and family considerations.

The results of the questionnaire data were displayed using bar graphs that show how the interview panel, as a single unit, views different issues (Appendix C). The data derived from results of the questionnaire responses was useful in that it uncovered patterns of thinking associated with the topic of farmland preservation. However, the

study was greatly enhanced by using qualitative open-ended style questions for investigation. The questions brought forth information on farm demographics such as size and agricultural production type. The open-ended research questions also revealed specific reasons and factors that contributed to farm owners' responses to agree or disagree with statements on the questionnaire. Thus the qualitative data added a depth of complexity that could not have been extracted otherwise.

Chapter 5

Interview Panel Demographics

This chapter presents demographic information to establish the context that allows for a deeper analysis and understanding of farmland owners' views on farmland preservation. In analyzing the questionnaire and interview results, certain contributing demographic factors weighed more heavily than others in determining whether or not a farm would be preserved. The following are the key demographic factors presented in rank order that inform the panel's decision making process: 1) farm size; 2) length of ownership and 3) farm income. Other determinant demographic factors that impact the panel with a lesser, co-equal force are: 4) age and retirement; 5) farm production type and 6) location of the farmland.

Demographic data is examined to understand how demographics make a difference in whether an owner is willing or unwilling to preserve their farmland. For example, does farmland size make a difference and are owners of relatively small farms or relatively large farms more likely to protect their farmland or sell development rights? There is interconnection and interdependence in the demographic factors as they pertain to farmland preservation and one factor is often the result of another. For example, income and land tenure are interconnected as are age and farm income. Location and production type are often interdependent. In sections of the chapter quotes that summarize common views from participants are used to illustrate and support points. The description of demographic categories follows.

Farm Size

Early in the interview process it became apparent that owners of relatively large amounts of farmland talked about similar issues and had certain elements in common. The same was true of owners with relatively small amounts of land. For instance, large farm owners were more likely to have previously considered selling development rights or placing a conservation easement and provided pros and cons on the topic. Not surprisingly, the number of farms that depend on farm income to provide a financial living increased as a function of farmland size. These preliminary discoveries led to further inquiry into what additional impacts farm size has on farmland preservation. The following size categories are constructed as a means to analyze the impact farm size has on willingness to preserve farmland.

Farms have been separated into three size categories according to property holdings of the interview panel: small farms that are less than 40 acres, mid-size farms between 40-200 acres and large farms that are greater than 200 acres. The panel breaks down into size categories as follows: 20 interview participants (43%) own less than 40 acres, 15 participants (32%) own 40-200 acres and 12 (26%) own greater than 200 acres (Table 3). The upper and lower bounds of each category are chosen due to likeness in responses within size categories and evidence of more variation between different size categories than within.

Large farms over 200 acres in size. Although there are always exceptions, owners of farms over 200 acres in size had a variety of characteristics in common. Owners had the capacity to lease part or all of their land. They also had the capacity to be

a viable farm business and produce enough farm products to have a full-time farm operation. There were five out of twelve owners in this size category that spoke of themselves as full-time farmers without reference to an additional income source from another profession or elsewhere, including lease agreements and income from timberlands. This is significant, especially in contrast to only two farm owners, one in each of the other size categories (small and mid-sized) that referred to themselves in this manner. Owners in the large size category were aware that greater acreage allowed for the flexibility to place easements on sections of land for different reasons depending on the land attributes and purpose. Owners spoke in favor of the ability to construct multiple easements to protect woodland and riparian areas as well as to protect agricultural areas. Last, owners with large farms were more likely to have owned their farmland for a longer period of time, some inheriting over multiple generations. Owners of large farms have owned farms an average of seven to twelve years longer than other size categories (Table 3).

Mid-size farms between 40 and 200 acres in size. Mid-size farms simultaneously held characteristics in common with both large and small farms. For example, they shared with large farms the characteristic of having a longer tenure on the land, many acquiring land before 1990. With small farms they shared a part-time farming status. Small farms and mid-size farms had fewer lease agreements than large farms, 10%, 13% and 42% respectively. Mid-size farms were more likely than small farms to sell development rights. Twenty percent (3 out of 15) of mid-size farm owners are actively considering selling development rights to either protect their land from development or permanently designate it as farmland. This is in contrast to zero percent of farms less than

40 acres who have sold or are pursuing selling development rights. This may be due to the unavailability to date of governmental programs to buy development rights on farms this size. Fifty percent of farms over 200 acres have owners willing to sell development rights.

Small farms less than 40 acres in size. Almost half (43%) of the interview panel is in this demographic category, owning less than 40 acres. The average size of farm in this group is 23.5 acres. Owners in this size category often classified themselves as a “small farm” or relayed they do not perceive themselves as a “farmer” since their main production is not typical of a classical or standard crop producing farm or ranch. Instead, owners cultivate hay, own horses, graze “a few cattle” or the land is used for hunting. These producers were more likely to talk about challenges and obstacles they face to practicing agriculture. They described and listed, more than farms of larger size, negative impacts and limitations to farmland preservation whether due to the geographic setting or economic conditions. They spoke of limitations due to surrounding development. They described physical qualities of land that inhibit agricultural activities such as wetlands, rocky soil or previously cutover timber land and associated expenses.

A subject frequently addressed among owners of farms less than 40 acres was their limited profitability with a small farm business. The lack of financial return was a key consideration in unwillingness to preserve the land as farmland. Smaller land owners talked about how it “doesn’t pencil out to take fruit to the market” due to the time involved and limited return. Owners talked about the time they would need to engage in profitable fruit or vegetable production and the acreage they would need to raise cattle or hay. The topic of small farm size also arose as participants discussed the amount of work

involved managing over ten acres of land. At this size, it is necessary to own equipment to do the farm work. Owners are not able to cultivate hay without owning machinery.

One owner remarked:

To operate efficiently you have to have a certain base that is large enough to buy the equipment, that is big enough, productive enough, to make it pay. You have to have a certain acreage, in this county especially, to make it pay to buy good equipment. Since there is really no custom operator that would come in and do the harvesting of grass, in this county. I differentiate between Thurston County and Whatcom County for example which is strictly a lot more agriculture. There is a lot of competition between custom operators to put people's crops up where the farmers themselves do not need to own the equipment they just pay a fee and because there is enough competition it is more efficient, more financially efficient to have a custom operator come in than it is to own your own equipment. In this county there is still a need to have your own equipment but in order to have your own equipment you have to have a certain land base to make it pay.

Consequently, owners of less than 40 acres were more likely to have an outside profession or paying job than owners of farms of larger size. Ninety-five percent (19 out of 20 owners) reported they do not rely on income from their farm yet they are able to figure out a way for their farming practice to pay for itself. There was one exception where owners reported a subsistence living. In this case, two people worked a full-time direct-market mixed vegetable and small meat business, as well as a Community Supported Agriculture (CSA) operation.

Participants with farms less than 40 acres were especially likely to comment on the benefits of the Current Use Agriculture taxation program that allows owners a lower rate of property tax if land is kept in agricultural use. Even though small farms are more likely to comment on the necessity of Current Use classification, 100% of the panel is enrolled. Due to a decrease in property tax and subsequent savings, the Current Use

Agriculture program was considered crucial for small farms and popular with farms of any size (Table 3). However, owners of small farms could not keep farmland without the program. One owner commented, "...I keep my land in Open Space Agriculture, without it, I could not have the land."

In summary, size is an indicator of willingness or unwillingness to preserve farmland. There was more of a willingness among large and mid-size farm owners to favor permanent farmland protection measures, such as PDR or conservation easements. In these categories, owners relayed that farmland size matters and that sufficient farmland size is necessary to make the farming profitable. Owners of mid-size and large farms were more likely to have strong ties to their land through heritage or working the farmland all their lives. There was more of a need among small farm owners for many other aspects to be in place for owners to consider conservation of their farmland above and beyond temporary measures, such as enrollment in Current Use Agriculture.

Land Tenure

The entire panel has owned and operated their current farmland an average of 30 years (Table 3). The range of ownership is from 5 to 60 years. Approximately 28% have worked their current farmland for more than 40 years in contrast to 9% who have owned and operated farmland less than 10 years. The panel is virtually split evenly into three time frame categories regarding the time farmland was acquired. One third of the panel, 34%, inherited farmland, 34% purchased farmland before 1990 and 32% purchased land after 1990 (Table 3).

Table 3. Years of Farmland Ownership, Mode of Land Acquisition and Enrollment in Current Use Agriculture by Farm Size

	< 40 Acres	40-200 Acres	> 200 Acres	Total
Number of Farmland Owners	20	15	12	47
Length of Time Operating Farm: (Average)	24 years	29 years	36 years	30 years
(Median)	19 years	30 years	38 years	
Inherited Land	4 (20%)	5 (33%)	7 (58%)	16 (34%)
Inherited Land (> 1 Generation)	0	3	3	6 (13%)
Purchased Land before 1990 (Majority of acreage)	7	4	5	16 (34%)
Purchased Land after 1990	9	6	0	15 (32%)
Enrollment in Current Use Agriculture	20	15	12	47 (100%)

Table summary: Farm size increases with a longer land tenure. Zero farms over 200 acres in size have been purchased after 1990. 100% of the panel is enrolled in Current Use Agriculture.

The heritage factor of owning a farm within a family for more than one generation is a very strong indicator into whether or not there is a willingness to preserve farmland. The transfer of farmland over multiple generations appears in six instances or 13% of the panel. One hundred percent of those who inherited land over multiple generations stated that they were willing to preserve their farmland and are currently engaged in gathering information into what measures they could take to preserve their farm.

The ownership statistics indicate that there is longevity in farmland ownership in Thurston County which could add a certain amount of stability concerning farmland

retention. In addition, total acres enrolled in the past two decades in Current Use Agriculture remains fairly constant. In 1990 there were 39,970 acres of land enrolled in the Thurston County Open Space Tax Program for Agriculture and in 2011 there were 34,864 acres enrolled (TRCP). There is 13% decline in the number of acres enrolled translating to a loss of 5,106 acres of farmland over a 21 year period or 243 acres per year. Although this shows a decline, there still has been a steady enrollment over time.

In combination with a slow rate of decline in total farm acres enrolled in Current Use Agriculture in Thurston County, the data in this study shows that ownership remains steady. The findings also indicate that there are relatively few newcomers to farmland ownership, especially large farms. Interestingly, 100% of farms larger than 200 acres were acquired before 1990. No farms over 200 acres in size have been purchased post 1990 (Table 3). This is evidence of how difficult it is to acquire large amounts of land at contemporary prices. Paradoxically, interview participants reported that it was necessary in most circumstances to have a large amount of acreage in order to sustain a viable farm business.

Farm Income

Approximately 85% of the interview panel stated that they do not depend on their farm operation as a primary source of income. The issue repeatedly surfaced that a very small percentage of farms could rely on income from the farm and be viable on a full-time basis either nationwide or here in Thurston County. One participant remarked:

I was going to add to the fact that a lot of small farms and even big farms nowadays the only reason they can stay in existence is because one or two members of the family is making more money off the farm than on the farm.

Owners indicated that they make or previously have made their money through an outside profession or business, or in some cases through real estate or timber sales. There were two instances of exception where farm owners had retired with income from a farm business, either by way of dairy farming or a beef cattle business. Overwhelmingly, it was necessary for the majority of owners to figure out a way to make money without depending solely on farm income.

Several participants spoke of their farm activity as a side business. They estimated that they have traditionally “broke even” between expenses and income from the farm. Some farm owners commented that although they sell various farm products, it is still difficult to show a profit even with a part-time venture:

The IRS looks at income and the farm. That is a business so you can write it off. They like to see a profit every five years so they can make money off it. So it looks good... You are claiming your cattle, as a business, you are writing off all their expenses, therefore you have to prove it is a business for profit. We are not able to claim a profit for years and years and years. But we are able to prove as a working farm because we do sell a lot of meat we just don't sell more than our expenses. We write off \$10,000 for expenses. One year we will sell \$6,000, another year \$5,000we have been in the cattle business for 50 years.

Many of the farm owners on smaller acreage need to buy feed as they do not have enough pasture for grazing or cannot grow enough hay to sustain a herd year round. In addition, the pasture may be located on Thurston County prairie land that is rocky and prone to drying out each year by September. This necessitates the purchase of feed for the winter. It was reported that it is expensive to feed cattle through the winter and the cost often offsets gains when the cattle is later sold at auction. One person detailed:

This soil is glacial till, you get a lot of good grass growth but then in August and September it starts looking like that area between the

Cascades and Spokane, nothing left except dry plant matter, no water. You can do some things to help it. But if you cut hay? What we have done is arrived at an animal count, number of head, that is reasonable and *it is not a lot*.....we have 8 cows, maybe four calves...we hope with a small herd we can defray an awful lot of expense....If you have 27 cows on this acreage size (24 acres)...your winter feed bill can run \$18,000. There is just no way you can cover that.

This research indicates that the income produced on a farm influences how an owner considers farmland preservation. The external challenges to producing a farm income whether it be economic or geographic in nature, have made some participants leery of farmland preservation forever, they view it as a risky decision. Many research participants asked the question, if farming does not provide a viable income, how can the farmland be protected? In the end, there is a lot of expense in farming. People described that what they produce in actuality is “really expensive hamburger” or that they could have a very luxurious lifestyle in exchange for what has been put into the farm over the years. Ultimately, many interviewees agreed that “we are not in it for the money.” They are motivated to continue farming for other reasons:

The thing that motivated me to get some cows was not meat or income...it was my enjoyment as a kid. We have a small heard....if you have 100 cows, you probably do okay, if the markets are running the right way. For us, we have kids and grandkids...half the cows out here are our grandchild's.

Many on the interview panel, although not directly involved in vegetable production, theoretically commented on why they think vegetable farming may not be viable in economic terms over generations of time. They remarked “very few make it, very few ever have and “it never used to be easy being a truck farmer.” A truck farmer was described as somebody who would sell vegetables directly, either at a market or out

of the back of a truck. Located on smaller acreages vegetable producers were not able to take advantage of economies of scale or have enough farm area to receive income from mixed resource production. Interviewees described that it is hard to get enough value off the land per year to offset expenses.

As a whole, participants surmised that vegetable producers may not be around to transfer property commenting: "...this might be an area where government assistance is warranted, just guessing, I don't know for sure." From the standpoint of farmland preservation, there was a sense that the majority of small vegetable producers were not able to make a living or sustain a long-term business for generations upon end.

In general, those on the panel that owned farms large enough to lease for vegetable farming reported "...it is not economical to farm here." They argued that at a certain scale, large farms in Thurston County utilizing conventional farming methods cannot compete with producers on the eastside of Washington State. They added that, farmers in Thurston County will need more money for their product. The reasons they gave that it is hard to compete include minimal options exist to expand and there is little to no infrastructure, such as processing. As pertained to water necessary to irrigate, water rights must be active at two acre feet of water right per acre, in an area with few farms left holding irrigation rights. Farm buildings are taxed on what it costs to build minus depreciation with no regard to current farm income. If an owner is retired and no longer using a specialized building, the tax expense on the building exceeds any profit a lease agreement can realize.

Some producers located on rocky prairie land considered the production of fruit or vegetables, but after factoring the cost of hauling soil, the time involved in production

and no water rights, their interest declined. Participants described various hurdles to growing row crops, producing small fruit or growing mixed vegetables. They said it is a rare event that a living can be made growing vegetables on small acreage, even if producers take advantage of direct marketing opportunities. The consensus was it is very difficult to make money with vegetable production in Thurston County hence it is difficult to keep the land in constant agricultural production and preserve it over time, summarized by this comment:

It is a hard thing to answer overall. I know it would be great to preserve farmland. Here at the farmers market you see nice couples raising vegetables, berries or something. Those kids are just working themselves in the ground, sunup to sundown. It is a tough way to make a living.

This is not to say the panel does not see societal benefits of local small fruit and vegetable and CSA growers producing in the area. They strongly value the supply of local markets. They understood the importance of local agriculture. From a local food supply standpoint:

We have to stop demanding the cheapest food possible. More quality food...the California strawberries, if they fall off a truck it doesn't hurt them. They are developed to ship. Our berries are not grown to ship. If they are picked the day of the sale their flavor is so, so much better. If we don't preserve what little bit of land that is still in farming we are at the mercy of California's San Joaquin Valley or tomatoes from Florida picked hard and green and turned red with gas treatments.

Many owners knew very well the economic hardships of farming yet believed strongly "...that food should come from local communities" and it is not "...all about money in your pocket" or "...we have to get away from looking at price than at quality and community." Instead the support of these small produce farms is seen as a benefit to

the area and the public. One participant who leases his land to vegetable producers commented:

Right now they (Thurston County) ignore farmland in this part of the county (North). They don't understand these small (15-20 acres) parcels are very good soil, some of them certainly worth effort to support.

Owner Age and Frequency of Farming

The demographic categories of farmland owner age and percent time dedicated to farming as it pertains to farmland preservation is described in this section. This section lists approximate age of farmland owners and takes into account the broader impact of aging as it relates to production type decisions, farm management and retirement. This section also differentiates part-time farming from full-time farming and hobby farming.

Farm owner age. The average age of interviewees is approximately 63 (Table 4). This closely aligns with 2007 national statistics that indicate the average age of farmers nationwide is 57. Also, according to the USDA agricultural census, the number of farmers age 75 and above has increased 20% from 2002 to 2007 (NASS, USDA). The number of farmland owners in this study, age 75 and above, is 8 or 17% of the panel.

Coinciding with an aging farm population are two patterns of change over time in agriculture that participants described. The first is a change in time commitment and production type due to their aging. Farm owners spoke of a need to switch production type as they got older in order to scale down the operation to something less labor and time intensive, hence more manageable. The second pattern of change follows a decline in farming and farm infrastructure in Thurston County that decreased options for producing efficiently.

Participants reported that the “older they get the less they are able to do.” Some have transitioned from raising heifer replacements or dairy farming to equestrian or to cultivation of a hay crop. Others lease their land to another producer. They speak of the ability to accomplish less and less each year or a desire to slow down:

It is a hard line of what you do with the farm. What do you do with the acreage? The older you get, the less, (pause) I don't want to go back to cows. I mean that is just, cows are tough! Cows go through fences, calving, you have problems with calving. There is always an issue with cattle! So I don't want to go back to doing that.

Others reported that it is difficult to compete as a farmer living in Thurston County with farms in more agriculturally oriented areas of the US such as Eastern Washington. According to interviewees, here in Thurston County there are general economic limitations to farming as well as a limited farm infrastructure. The land is more expensive and harder to acquire. There is not as much space available, as the area is smaller and more populated, leading to confined farm operations. Population growth subsequently increases development pressures. The political make up is different, more geared toward residential services than a farm economy. According to one farm owner, “conventional agriculture is a thing of the past in Thurston County.” Another participant reported:

In Thurston County there has been a general shift of course. As the population grows agriculture has moved, it has become less efficient, there are more restrictions and so on. It has moved to Eastern Washington or beyond. That is just what has happened in the last 20, 30 years, especially the last 20, especially the last 10, although the last few years it is maybe more stagnant, but, it has. It has forced the farmers that used to be here, the small dairies that were all over Western Washington, they are gone, just a few left. The farmers that could make a living on the beef ranches, that has changed. There are more restrictions, you can argue whether it is for the common good or not, and of course fertilizers and run off and all that is something we don't want. But all of those restrictions you can say

gosh, we don't want any more run off we have more and more population but you don't get the yields. There is a trade off on everything. You don't want to pollute but there are setbacks.... The desire is to keep more space between ag and waterways.....But you can't farm 100 acres like you farm 200 acres. The fixed costs don't change. Equipment costs don't change.

Interviewees reported that the climate is wetter in Western Washington hence producers located here face different regulations that are absent in drier farm counties. On the positive side, one owner remarked, "We grow grass here like nobody else. It is why we had so many dairies." However, it takes a lot of land to raise livestock. In five separate interviews owners independently described a ratio of between two and three acres needed to raise one cow. One owner said specifically, "...you can have two cow calf pairs (4 cows) on 10 acres. It takes 10 acres to support." The farm must have adequate space to grow feed as well as pasture animals. This means farms must be large enough to support a cattle business, yet the topography of Thurston County is rich with waterways, wetlands and rocky prairies all regulated to limit cattle grazing.

Participants reported that there is not a location to buy large farm machinery in Thurston County. They also shared that necessary equipment, or even a large animal such as a bull, are so expensive to keep you just do not loan them out to others. It is difficult to share certain farm machinery or animals due to the cost and the risk if something should go wrong. One owner described, "...you just don't lend them out because of the expense involved if anything should happen."

Many interviewees described costs and limitations to raising beef cattle. They reported that Veterinarian bills can exceed \$1,000 per visit, there are few large animal veterinarians located in the area, and USDA inspection sites, necessary to sell individual

cuts of meat, are no longer permanently located in Thurston County. There is only one livestock yard located in Centralia. Producers must sell “on the hoof” whole or sides of livestock directly to consumers or at a livestock auction. It was reported that the price of beef received at auction is not always enough to cover costs. Even selling beef directly to local consumers has limitations. One owner commented:

....there is more demand now, people want home grown meat, grass fed beef, it seems to be coming in more demand, but I don't know if we can afford to do it....It is seasonal some years are good some years are bad....it seems like the market has come up.... We try not to, we do overspend in a sense, we try not to, we try to minimize. I do as much vet work as possible, we buy *very* little grain. That is what is so fascinating. Our economy is just shooting up so fast. It is so expensive. Everything is getting more and more expensive and the cattle business is not moving at the same rate. That is the big issue.

Some interviewees, who are retired, indicate they now have more time to be actively involved with management of their land. However, they also expressed concern that now that they are retired the expense of a small cattle business or the work involved is too much:

We are a little nervous now that we are retired that we will be able to support the cattle like we have in the past. Our tax return shows that the rate we are going if it costs \$500 a month to support 10 cows and 10 calves that sooner or later that could eat up our retirement. It is obviously going to drive us into some change of some kind. Like raising just hay and selling the hay or something rather than the cattle. That is the difficult situation nowadays. We definitely want to keep the farm.

Retirement. Approximately 49% of the members of the panel are retired. The majority are retired from nonfarm jobs, outside professions or other investments. Of those retired, 4% are retired from full-time dairy or ranching businesses. In general, although they understood the limitations of farming in this area, older owners were more likely to

comment on the need to save farmland, "...at least what there is left of it." This was due to personally witnessing the enormous loss of farmland in valleys up and down the Puget Sound region. Respondents lamented that most of the "good stuff" is gone in reference to soils containing an influx of nutrients from river valleys. Consequently, respondents referred to a desire to protect the farmland that is left due to the extent of previous loss. Many said it is much easier to set aside land as a reserve than it is to dig it out from under asphalt later when it is needed. The fallow land can be brought back into production easier than land with houses or commercial industry.

In contrast, younger owners, either just starting out in farming or being at least 10 years from retirement, their perspectives on farmland preservation were quite distinct from those already retired. The latter had a "wait and see" attitude without a current need to preserve their farmland or "lock in" land rights to one specific land use. They wanted to leave options open for unforeseen future circumstances, such as the need for a "nest egg."

Part-time farming. Eighty-five percent of the panel farms part-time (Table 4). This includes retired owners that may spend full-time hours working their production yet indicated they have a part-time farm income. These owners have taken care of their financial situation, throughout their lives, by having an outside job or career and do not rely on their farm income for a living.

The most prevalent types of part-time agriculture are beef cattle and hay cultivation. Both require less time and labor to manage compared to other farm practices

such as vegetable, fruit or dairy production. When asked what was considered part-time farming, one interviewee replied:

You have to have a large farm to be able to live on it. And have that support, where a lot of farms have people that work out. They have 20, 30, 40, 50 acres maybe, run a few cattle and make a little hay or this or that. That is part-time farming.

Table 4. Farm Owner Age and Percent Time Dedicated to Farming by Acreage Size

	< 40 Acres	40-200 Acres	> 200 Acres	Total
Number of Farmland Owners	20	15	12	47
Average Approximate Age of Owner	63	64	61	63
Median Age	65	63	68	N/A
Part-Time Farmers (Owners Indicated Majority of Income Derived from Sources Other than Farming)	19 (95%)	14 (93%)	7 (58%)	40 (85%)
Full-Time Farmers (Depend on Farm Income)	1 (5%)	1 (7%)	5 (42%) *	7 (15%)
Retired Farm Owners	12 (60%)	7 (47%)	4 (33%)	23 (49%)

**Full time farming and median age of farm owner increase with an increase in acreage size.
* Does Not Include Timber Production**

Some farm owners, in the category of part-time farmers, leased their farmland to another grower. This allowed them to own and manage the farmland without a full-time commitment to production. In some cases, the owners were not involved in production at all. Typically, if land was leased, the type of production practiced was more labor intensive. Examples included row crops, strawberry or dairy production. Seven land owners indicated that they lease their farmland to other growers. In three out of seven lease agreements, owners have farms over 200 acres in size. In the remaining four lease

agreement, owners specify they lease a smaller portion of their land, twenty to thirty acres, to vegetable growers and charge very little.

In the panel as a whole, there was evidence of informal agreements with other farmers to use land. These arrangements were often based on barter or a share crop situation. According to the owners, barter agreements were a win-win situation. One owner would receive the benefit of grazing their animals and the other would receive a pasture maintained without the use of machinery. Or one owner would receive fertilizer in exchange for the first cutting of a hay crop.

Hobby farming. Although these farm owners operate on a part-time basis, participants clarified that part-time farming should not be confused with hobby farming. Participants reported that they have farmed multiple decades and identify with owning a farm and being a farmer, even on a part-time basis. One participant remarked:

Farming as a hobby who would call it that? It is degrading somehow. Our accountant asked us what our cows' names were. He was trying to make the point that if you can't show a profit you may be considered a hobby farm. We are not a hobby farm, I do not know what that would look like on paper but we claim business expenses.

Full-time farming. Conversely, 15% of the interview panel indicated that they operate their farm full-time and rely on the farm income as their primary source of income. Some indicated their income is minimal, but also relayed they do not demand much. This group can of full-time farmers can further be broken into two descriptive categories: those that indicated their farm currently needs operating money (4%) and those that have the basis of an economic farm from farming (11%). Of those that have the basis of an economic farm from farming, the type of agricultural production practiced is

broken down as follows: one dairy farm, one vegetable farm (CSA and direct marketing) and three beef cattle enterprises or a combination of cattle, with other livestock and/or timber production.

In general, the farm owners that operate full-time own larger amounts of land than those that operate part-time. The average farmland acreage size of full-time farm operations, with the exception of the vegetable producers, was 465 acres. The large acreage size provided enough farmland for a diverse operation. It also allowed for enough grazing space, or cultivation of hay as forage, to support a herd of cattle large enough to make an economic gain. Ideally, to make a profit raising beef cattle, owners estimated that in today's market, a minimum of 100 head of cattle are needed to get an adequate return on investment. In conjunction, as described earlier, respondents calculated approximately two to three acres of pasture or forage per cow is necessary to maintain the herd and have enough feed for winter.

Primary Production Type

During the interviews farm owners were asked how many acres they own, how many they operate and to describe their agricultural activity. The results that describe the primary production types are listed according to acreage size in Table 5. In a few instances, the primary production type figures are approximations as owners did not clarify acreage proportion dedicated to each production type, or did not differentiate between incidental farm uses such as grazing in woodlands. Additional uses for land owned but not in agricultural production included wetlands, timberland, woodlands,

regulatory setbacks from rivers and residential use. Participants indicated they operate as many acres for agricultural production as is feasible.

Table 5. Production Type by Farmland Size

	< 40 Acres	40-200 Acres	> 200 Acres	Total
Number of Farmland Owners	20 (43%)	15 (32%)	12 (26%)	47
Primary Resource				
Beef Cattle/Hay	14 (70%)	12 (80%)	7 (41%)	33 (70%)
Vegetable/Fruit	4 (20%)	2 (13%)	1 (8%)	7 (15%)
Dairy			2 (17%)	2 (4%)
Timber		1 (6%)	1 (8%)	2 (4%)
Horses	1 (5%)		1 (8%)	2 (4%)
Christmas Trees	1 (5%)			1 (2%)
Secondary Resource				
Forest/Timber	4 (20%)	11 (73%)	11 (92%)	26 (55%)

Seventy percent of the interview panel manages pasture for beef cattle and/or hay cultivation

Livestock and forage production. The primary agricultural activity for 70% of landowners was management of pasture for cattle and or hay production. The majority of acres of farmland in this category were dedicated to hay cultivation. The percentage of owners cultivating hay or raising beef cattle increases to 74% when selecting only farms that are less than 200 acres in size. Owners attribute a variety of reasons as to why they have chosen cattle or hay as their primary production type. First, it fits well with geographic features of the Thurston County. The area is full of rocky prairies and highlands that do not flood. According to interviewees this type of land is good for optimal health of animals with hooves. Lowlands and areas around rivers can be problematic in the winter for grazing due to health problems derived from mud on hooves. Second, historically the area was heavily populated with small dairies in constant

need of heifer replacements. As a result of the decline in dairies, farms that in the past raised heifer replacements have changed production type to hay cultivation or equestrian management. The production of hay is in demand in Thurston County as many people own animals that feed on hay. Last, the production of agricultural products such as hay or beef cattle can be worked on a part-time basis allowing the owner time to produce income that is not farm related.

Fruit and vegetable production. Within the panel, fruit and vegetable production was much less common, comprising 15% (7 out of 47) of the sampled population (Table 5). In this category, not all acres owned are dedicated to fruit or vegetable production. Farms over 40 acres in size use an average of 18% of their land for fruit or vegetable cultivation, the remainder is in timber or grazing. Of the farms that produced fruit and vegetables as the primary production type, more than half (4 out of 7) leased to another grower who in turn operated the agricultural business. This is especially true for farms greater than 40 acres in size. Three out of four farms less than 40 acres in size are owner operated, of which a total of 11 acres are cultivated in row crops or CSA production.

The small intensive crop producers spoke of a major impediment to farming being the price of land or finding land with water rights. They described how they had to work hard for many years before they were able to buy a small piece of land. Or they reported they had to invest heavily and buy at contemporary development prices. One of the owners currently leases additional land in order to have enough acreage to operate their vegetable business. Moreover, these producers described the hard physical labor involved in growing row crops such as bending, crawling and lifting heavy objects or long hours involved in marketing and selling produce.

There were a few instances where older land owners leased their farmland to younger fruit and vegetable producers. Retired farmland owners described the benefit of leasing to younger producers to keep their land classified as open space agriculture, and to keep water rights active. They also reported that these partnerships with younger producers allowed them to slow down. One owner described two benefits to this since he is now 80 years old, "...it keeps my taxes down and I don't have to go out and work it (laugh)." These partnerships also provided younger vegetable producers access to land. In one case, an apprenticeship was established, eventually to be handed over, enabling expansion of a wholesale produce business to restaurants in Seattle.

Equestrian production. Equestrian businesses constituted 4% of the sampled population. In general, equestrian use of farmland was favorable within the panel. Horses were seen as a valuable part of agriculture in the Thurston County area. Reasons included that horse owners need to purchase hay and a lot of farm owners grow hay crops. A horse helps to keep grass down, certainly favorable in contrast to using a lawn mower on a five acre lot. Horses are useful for rounding up cattle. One owner commented that not many people have the riding skills necessary to corral a herd. Most importantly, horse owners spend a lot of money on their horses in turn contributing a big part of agricultural dollars spent in Thurston County. The secondary economic benefits of equestrian production are summed up with this comment:

Horses are an important part of our agricultural background. No less than 4 or 5 of the US mint quarters have horses on them..... The Department of Revenue was looking at taking horse boarding out of agriculture. Have to look at whole economy.....farm stores, tack rooms for riding equipment, pharmaceuticals, farrier industry doing hooves, veterinarians, people who grow hay....it is not just rich people who ride their horses. People who tool leather and make it into tack....It's a huge industry, you can't take

one slice out.... One more way that it is cutting farming....if that goes away.... I pay business taxes. I'm still competing.”

Dairy production. Thurston County has a long history of dairy farming yet the total number of dairies has decreased significantly over the years. According to the Thurston County Working Lands Report (2010), between 1995 and 2008 the number of dairies decreased from twenty-one to nine. To interviewees, many aspects of the dairy industry have changed in the last half century making it difficult to have a successful dairy without a large land base. As one land farmland owner put it:

Farms have to be large to compete. The problem I see is the cost of machinery and cost of doing business, people get bigger and bigger. I'm 80 years old, when I was young, a dairy could have 50 cows and make a living. Dairies today, 1,000 cows is not considered a large dairy. Your equipment costs so much you have to spread it over the whole and be large. The little guys will be crowded out eventually or become part-time farmers.

Participants described the feasibility of dairy farming, during the 1960's or 1970's, as an occupation that provided a livelihood for a family. A few estimated they could milk around 70 cows at that time with a land base of 175 acres and make a profit. Today, some interviewees approximated the absolute minimum number of cows necessary to provide any kind of profit in the dairy business is 400 head.

Farms work on volume, a similar business model to the building industry, you have to build a lot of houses to gain money. Dairy farms need a lot of milk cows to make some money. If you are going to go out and milk 100 cows you are just going to go out and work. You are not going to make any money. You need.... 400 to 1,000 milk cows, now you can get into where you can *possibly* make some money.

Those that currently run a dairy indicated an efficient number is closer to 900 head of cattle. In tandem with the number of cows required in a dairy business to reach

economic efficiency, the number of acres needed to sustain the dairy herd also increases. Participants described that this is due to the fact that farmers need to produce their own animal feed to decrease overall costs and that enough land is necessary to maintain the carrying capacity of waste nutrients. This is done either by limiting animals or exporting nutrients. The following statement illustrates this point:

We try to grow as much feed as possible in the form of grass for green chop or grass for grass silage. Our philosophy has always been in connection with the number of cows, to have control of more land than we need to have for the number of cattle we own. So that we don't get into a predicament with manure disposal, where we would have to dispose of more manure than we really have land for.

Many interview participants attribute the decline in dairy operations to economic change over time. First, these changes necessitated owning larger dairy herds and making subsequent expansion in land base and operation. Second, a waste management regulation, introduced in the early 1990's, required installment of costly manure lagoons, compounding expenses. Owners knew their profit margin was thin and saw they would have to expand so far to cover additional fixed costs that they could no longer afford the dairy. Finally, the decline in small dairies was attributed partly due to dairy owners aging and wanting to retire:

People say, I am too old now to start worrying, or, I am financially not willing...The other reason is people want to retire. They don't want to hassle with milking cows 2 times a day or 3 times a day....There were 50-70 dairies at one time, now there are 7-8. Well, all these guys kind of retired. They didn't go broke entirely, they went out of business and started to raise heifers or didn't want to deal with manure disposal any longer because Ecology started to come down on people. They didn't want to make lagoons....That is how we went from that many dairies to a few. And the ones that are left, we are all bigger. There are a few small ones in the county but not many.

The policy that dairy farms must install manure lagoons was introduced by the Department of Ecology in an effort to control nitrogen levels in creeks, streams and rivers. As it turned out, one dairy owner explained that the installment on his farm was beneficial:

The regulation came in that you have to have manure storage for six months, the winter months Nov-April, March..... I think it is a great invention... you know I was hesitant....one of my Oregon fellow dairyman said once you do get one you will be happyWe have much better control over application of manure, we do it through a hard hose. ...We don't get in the field when we should not, when it pours rain.... In the days before, we had daily applications of manure on the fields regardless of what the weather was like. If it was freezing, snowing or pouring rain, we were making big tracks on the field, we had to.....It is not good for the soil. So I am happy.

According to interview respondents, there are other risks involved in dairy farming. The price of milk is set by non-market forces and is out of the farmer's control. According to dairy owners, the government fix of price subsidies to offset large booms and busts in the dairy business is no longer applicable. It was explained, government price supports are currently below production costs. A recommendation was to eliminate subsidies and orient milk to market production. One farm owner commented:

I know dairy men in the area. The price is out of their control and set by someone else. When it is good it is good. But in '09 it dropped. I wish I could remember the exact figure, but it was costing dairy farmers \$150 a day in feed. *That the cows were costing the farmer.* Milk should cover feed and some profit. What are you going to do? The cow has to eat. The price dropped below operating expenses.

The panel agreed that it is very difficult to enter into dairy farming today. Some participants, who previously owned a dairy or raised heifers for dairies, talked about the time intensity of dairy farming which makes it a full-time, "...twenty-four hours a day

and seven days a week” operation, requiring that “you are either in or out.” Dairy farming has a lot of start-up costs that are capital intense and the overhead is very high. One participant considered starting a dairy business. He remarked:

It is very capital intense. It takes a lot of money to dairy and a lot of risk from my point of view. I thought about turning this into a dairy. I was reasonably shocked at the amount of investment I would have to make to make it work.

Timber and Christmas tree production. Timber production comprised 4% of the total sampled (Table 5). More than half of participants (55%) use or have used in the past a portion of their property for timber production or own large wooded areas as a secondary resource. This high figure aligns with geographic descriptions of Thurston County, as it is comprised of large portions of dense forest, woodlands or previously cut-over timber land (Noble & Wallace, 1966). If land parcels are classified as Open Space Timber in the Current Use Taxation program, 10% may be dedicated to incidental use such as grazing. The incidental use must be compatible with recommended forestry practices as part of a timber plan (Thurston County Planning Department). In the event more timber space is allocated for grazing livestock, the parcels must instead be enrolled in Current Use Agriculture and the grazing area contained with fencing. The tax savings is higher if enrolled in Open Space Timber.

Christmas tree production is 2% (one land owner) of the total sampled (Table 5). The owner described his property and business as enjoyable. He likes the ability to commit to temporary farmland preservation using the Open Space Taxation program. The driving force behind whether or not to later sell the farmland for residential use will depend on what his children want at that time. He also explained that it did not make

sense to preserve his farm due to its location in a five acre development. He instead supported the conservation of large tracts of farmland.

Location of Farmland

In order to determine how much development pressure was a factor in a farm owner's decision to sell or keep their farm, analysis was conducted comparing a farm's proximity to an urban growth area (UGA) boundary and an owner's willingness to sell development rights or place a conservation easement. The results showed that the size of the farm is more important than the location when landowners consider selling development rights. In other words, if a farm is over 200 acres in size and located less than one mile from an UGA boundary, the farm owner was less likely to indicate development pressure as a factor in their decision making process to place a farmland conservation easement (Table 6). Alternately, if a farm was less than 40 acres in size and close to an UGA boundary, there was very little willingness (1 farm owner out of 20) to place a conservation easement to protect farmland.

Table 6. Proximity to UGA Boundary and Willingness to Place a Farmland Easement by Farm Size.

	< 40 Acres	40-200 Acres	> 200 Acres	Total
Number of Farmland Owners	20	15	12	47
Willing to Place a CE or Sell Development Rights on Land	1 (5%)	3 (20%)	6 (50%)	10 (21%)
Total Number of Owners < 1 Mile from UGA Boundary or Within an UGA	8 (42%)	9 (56%)	7 (58%)	24 (51%)
Of Those < 1 Mile from UGA- Yes, Willing to Preserve With or Without a CE	1 (13%)	6 (67%)	5 (71%)	12 (50%)
Zoning Designation: Rural Residential Resource 1:5	13 (65%)	8 (53%)	10 (83%)	31 (66%)

Over half (51%) of the farms are located less than one mile from an UGA boundary. Large farms close to UGA boundaries are more willing to place farmland easements than small farms. Sixty-six percent of farms are zoned rural residential resource (1:5).

Chapter Conclusion

In summary, a discussion of barriers faced by farmland owners in Thurston County within each demographic category helps to illuminate detailed farm situations at a specific place in time. The description of what agriculture looks like and the detail of what transpires when practiced helps indicate what kinds of programs are needed or ways society can support.

The demographic characteristics show almost half (43%) of the farms are small and less than 40 acres in size, very few (15%) operate on a full time basis, and farms are limited in what they can produce and in the profit they can make. Farms over 200 acres in size proportionately have more owners that farm as an occupation yet it is very difficult to buy a farm at this size in today's market. The current use taxation classification is certainly favorable within the panel, and imperative for farms less than 40 acres in size. These farms are small enough that without the program they could not produce agricultural products in the area.

The context of demographic factors that impact and inform the interview panel helps to illuminate the complexities and variation within the panel regarding how farmland preservation decisions are made by farmland owners. Key demographic characteristics of the interview panel are presented to determine factors important to the outcome of retaining farms and farmland and how these factors impact and inform participants' decisions. The examination reveals a complex matrix of factors and context in which decisions are made.

Chapter 6

Farmland Protection Measures: General Benefits versus Specific Limitations

This chapter discusses the results and assessment of open-ended interview questions that best explore farm owners' values and beliefs in regard to the broad benefits of protecting farmland. First, farm owners were asked to describe interest or critiques they have in farmland preservation. Second, owners were asked, from a farm owner's perspective, what they think are reasons to preserve farmland specifically in Thurston County. Last, there was an inquiry into what farm owners think are the best methods and strategies to preserve farmland.

The following considerations are not central to a participant's willingness or unwillingness to preserve their own farm yet the issues surfaced independently in many interviews. The analysis includes perspectives on benefits at a national and a local level and challenges that remain to farmland preservation most specific to Thurston County. Farm owners typically gave more than one answer and often presented areas of conflicting views or both sides to an argument. Due to this, it is not possible to discern what they think are the *most important* reasons to preserve and the *best* method to do so. The results instead highlight a summary of responses and themes that were mentioned with greater frequency for each question. Themes that reflect the most cohesion in the panel are presented along with areas where the panel varied significantly.

Broad Societal Benefits of Protecting Farmland

Overall, the panel commented on the topic of farmland preservation at the national level as opposed to the local county level. Generally speaking, the concept of

saving farmland was viewed as a worthy goal in order to feed a nation and a growing population. As a nation, participants remarked that it is prudent to set aside farmland to grow food in order to avoid future problems and risks. The most frequent response provided (40% of the panel) to preserve farmland as a country was for food and national security. The second most frequently cited rationale (36% of the panel) was due to societal and environmental benefits produced when working land is kept in open space in contrast to being developed.

Maintain food and national security. Saving farmland for the outcome of food and national security was a factor that united the panel. Strong support existed for the notion that it is in the nation's best interest to have enough farmland to produce its own food. It is good for the economy and good for the country to have farmers produce a variety of products and sell locally, nationally and even internationally. The panel agreed that the more self sufficient a nation is in producing and caring for agriculture as a natural resource the better. One owner summed it up by saying, "...I think it is good for the whole country to have people growing on their property. It helps to feed or house them. It promotes economic activity."

In regards to national security, the panel reported that to be secure as a nation we have to be able to grow our own food. As one explained, "...if we are not growing our own food then we will have to get it from somewhere else, and once we do this we leave ourselves open to uncontrollable risks." For example, in the event of an outbreak of food borne illness the public needs to know the origin of their food to avoid harm. Another participant explained, "...when there is a beef recall, our phone rings off the hook." There were references to historical lessons learned by countries such as Germany after

World War II as they realized they could not depend on other regions for food and must produce it themselves. Some interviewees commented that from their perspective the United States is currently very dependent on foreign food. The problem is that it is “cheaper and easier to get food from other countries.” However, there was a strong realization among participants that farming is the one industry we cannot do without, summed up by this comment: “...talk about national security, if you think oil is a big deal, you don’t want to depend on other countries for food.”

There was a general sense that in order to maintain food security as a society we need to have land close by that is producing food. The panel spoke of pertinent reasons to preserve a variety of types of farmland especially surrounding cities. Food problems were anticipated due to rising transportation costs, such as high fuel and gasoline prices. Farm owners stressed the importance of locally producing food. One farm owner commented, “...we have become accustomed to grocery stores stocked with food produced elsewhere in the world. During storms people wonder why there isn’t any milk at Rite Aid.” Another commented, “...I am not thinking apocalyptic but when a natural or manmade disaster happens and all the food is grown in one place then you cannot support the area.” Owners described that somehow as a society, in our own areas, we need to keep stocks up and keep the system in balance.

In regard to local markets a few farm owners commented that the consumer must be willing to pay more for the production of local foods. They inquired, “Are you paying them what they think they need?” As to whether government can assist farmers locally one owner remarked:

How can we force products grown here, at a higher cost of production because of the area, how can we force a local market to pay over twice the amount? This guy is going to need \$10 in a \$3 market.... If government really wants local commodities and wants lots of consumption.....why not buy this guy's product at a premium to support the local economy. Honestly, that.

Farmland supply. Farmland preservation begs the question do we have enough farmland or is there a scarcity? The panel diverged in their views in regard to supply of farmland. A little over half, twenty-five respondents, elaborated on the topic of farmland supply. Of the twenty-five respondents, 75% said we need to retain “what is left” of the resource, whereas the other 25% questioned whether Thurston County is a good location to set aside farmland. In regards to whether we have enough farmland to produce the necessary quantity of food, an interviewee remarked:

This piece of land, although it is large for Thurston County is relatively small in the big scheme of things. There is a lot of farmland out there, maybe not here, but in Eastern Washington and in the nation.

To a few respondents, there was a sense that if farmland in Thurston County was to be developed, or no longer be in food production, it would go unnoticed within the current patterns of food distribution:

Production farmland is located in *real* farming communities like Southern Idaho and Eastern Oregon. Here the farming and farmland is like a service, it builds community.... I would guess 100 acres of one crop would flood the local markets.

These participants (25%) did not perceive a current national shortage of farmland to exist. A market-oriented perception existed that the amount of farmland retained will be what is appropriate and what is needed to produce. They explained that farm production in the country is still producing what is needed and it is not clear when the

time will come that the current supply of farmland will not be enough. For example, one person questioned, "...what am I saving it for anyway, three generations from now, when the farmland will *possibly* be needed."

The majority (75%) however indicated there will be a time, at an unknown point in the future, when a reserve of farmland will be needed. One owner echoed the statement with a caveat, "I know we may not need it now, but there will come a time when the consequences of not setting aside farmland will be felt." By and large, the panel felt we may not currently have a scarcity of farmland, but it is prudent to set land aside.

Protection of Open Space Amenities. There was consensus in the panel that it is important to keep farmland, not only to produce food, but to contribute to beauty and other environmental services that are not realized when an area is heavily developed. The benefit of farmland as open space was the second most frequently cited reason to preserve farmland. Two themes distinguished the responses. First, farmland contributes to a healthy environment with services produced such as aesthetically pleasing landscapes, the production of clean air and water, conservation of soil (a reserve for future generations) and wildlife habitat. Second, the perspective that there has already been enough conversion of farmland to development was frequently mentioned. Respondents reported that farmland conversion is a grave decision that should not be taken lightly, because "once farmland is gone, it is gone for good."

Owners remarked that they, along with the rest of America, like to look at farmland. Overall, the panel reported visually liking the "greenery" and "open space" of farmland. One owner commented that it is like going to church. Many provided

descriptions of farmland in Europe or in the US where the transition from city to farmland creates a stark difference. Areas that have a zoning density of one residence per eighty acres, such as Lexington Kentucky or the Willamette Valley, create large swaths of continuous open space. Another farm owner remarked that the contrast is simply breathtaking and said, "...how wonderful to leave growth and enter farmland."

On the other hand, interviewees understood the controversy and conflicts surrounding agricultural zoning controls that create this effect. Regardless of perceived advantages and disadvantages with zoning regulations, the panel frequently commented that farmland should be preserved for the intrinsic aesthetic value.

Working land provides environmental services. In addition to the beauty of open space farmland owners discussed how keeping farmland whole and not developed contributes to greater societal goals. Many respondents talked about their acreage providing the environmental benefit of wildlife habitat. Landowners reported that rare plant species or butterflies have been found on their land. Many of these species are of interest to agencies such as the Natural Resource Conservation Service (NRCS), that previously assumed the species were no longer in existence or not found growing at this latitude. During the process of elaborating on the benefits of large areas of open space, participants frequently mentioned clean air, water filtration and conservation of soil as outcomes of farmland preservation.

Moreover, the undesired consequences of too much development, particularly at the local Thurston County level, were mentioned at equal frequency. Stories persisted about problems associated with too much development, such as not enough water, septic systems too close together and houses that are built cheaply. One farm owner

commented, "...There has been a lot of ridiculous development lately, the kind the environment cannot support."

However, a genuine feeling of dilemma surfaced in that respondents also understood why development occurs. One interviewee said, "...It is a powerful industry (the building industry) that the (Thurston) County is up against." It was stated that farmland is the easiest kind of land to develop. Farmland is clear and flat and that one should "...keep in mind that government is one of the biggest offenders with construction of highways and airports." Comments were given to illustrate why, in general terms, it is difficult to limit growth: "...people demand more today" or "people like country living" and "we can't stop development."

Specific Limitations to Farmland Protection Measures

In the process of examining a farm's proximity to UGA boundaries together with views of the farmland owners, specific information surfaced in regard to how regulatory aspects of the Washington State Growth Management Act 1991 (GMA) affect and, in some instances, limit farming. The GMA regulations that were frequently mentioned were zoning controls and the Critical Areas Ordinance. Participants commented on how these regulations impacted farming and farmland preservation decisions. The topics encompassed the following concepts: consequences of GMA zoning decisions, variance in how zoning decisions are made, how zoning controls in turn affect land value and how the protection of Critical Areas for wildlife habitat intersected with agricultural practices.

GMA and UGA boundaries. The Washington State GMA requires counties to establish UGA boundaries as a measure to mitigate urban sprawl. When UGA boundaries

are designated or expanded, zoning requirements within the UGA change to a higher density of construction and development. According to farmland owners, this increased development often created subsequent challenges. One interviewee, who resides within a city limit, relayed that once a farm has been incorporated into a city the density of the growth controls adversely affected his farm. He explained that it is rare to have a large piece of farmland close to urban areas. The general public does not understand the land use and usually “people think it is a park and they walk through it and throw trash.”

A few farm owners questioned the extent and large size of certain growth areas and city limits. They explained that when a city expands services or incorporates the farmland within the city it decreases the priority to preserve those farms. One farm owner explained the need for a city to “first build infrastructure” as opposed to expanding UGA’s and then encouraging growth. He said, a city must first extend public services such as water, sewer and roads before growth and development are encouraged. He commented that from his perspective “...Yelm got greedy....if they had built the infrastructure first and nobody came, well then tough.” But now, he lamented, the growth boundaries are large which adversely affects farms in the area.

Farm owners living adjacent to UGA boundaries described differences when farming within and peripheral to the UGA border. Farm owners within UGA boundaries cannot burn piles of farm debris. Owners described farmland management difficulties that ensued with large piles of slash that need to be discarded.

A large part of the outskirts surrounding UGA boundaries in Thurston County are zoned rural residential resource. Thirty-one out of forty-seven total farms on the panel

(66%) are located in areas zoned rural residential resource (Table 6). Overwhelmingly farm owners did not agree that rural residential zoning, at a rate of one residence per five acres, was an effective strategy to protect agricultural lands. They agreed that it helps preserve open space, but not agriculture. The low density development created patterns and behaviors that participants criticized. People commented that five acres is too small for cattle, and too large to take care of without appropriate machinery. They also commented that zoning at that density is “kind of a bad deal, it’s all chopped up.” Or what tended to happen was that “there is a ½ acre with a house and 4 ½ acres of weeds.” There are many disadvantages of five acre parcels as it pertains to farmland preservation:

The people who have the five acre plots, they mow them..... I think gosh, from a farmer’s perspective that is a waste of farmland. They are mowing it with lawn mowers and putting weed and feed on it, that is a pollutant. There is no easy answer, probably why there is such a battle over it. But if you were to ask another farmer with the same preservation concerns that we have, they would say, if you are just going to live in a house then you might as well save the land, rather than live in a five acre landscaped house.

Variance in how zoning controls are implemented. According to many on the interview panel, there has been so much variance in how programs have been implemented over time and how “the County tinkers with zoning”, that interviewees contented it is hard not to see the negative effects of zoning measures. One respondent explained:

There have been so many variances because it was about who you knew or how much stink you put up.....it all depends on who screams the loudest. It was that way 50 years ago, 10 years ago and will probably be the same in 50 years from now.

Another owner described the perceived inconsistencies with zoning:

At times there doesn't seem to be rhyme or reason to development. I see the development all around and don't understand why in some cases it is allowed and in others not allowed.... A lot of us are sort of waiting to see what the county is doing with zoning around here.... They took a nine acre strip right along highway and turned it commercial. They had purposed to put in an all night, twenty-four-hour gas station (across the street from farmland).

Zoning and land value. One issue cited in regard to GMA and UGA boundary designations around cities is a shift in value from those on the outside of the boundary to those on the inside. One owner commented, "...There is no value loss just a shift in appraised value.... For those within a growth area, you are rich, (and on the outside) you get nothing." However, participants were frequently conflicted on this issue and presented pros and cons to the argument of whether zoning controls were effective. For example, people would comment "zoning is the easiest tool but it creates a lot of problems." Or "zoning is a proper tool when used with empathy" but land values change dramatically when a boundary line is drawn.

As part of the GMA, in an effort to protect farmland, select farms were "downzoned" in Thurston County to one development right per twenty acres for long-term agriculture or one development right per forty acres for long-term agriculture of commercial significance. This in turn decreased the overall value of the land. Participants reported that zoning can be a detriment even when the end goal is not development, for the reason that a zoning designation makes a difference in the land value equation. They explained that if value is taken away it cannot always be expected that agriculture will be successful. Respondents said: "...there are times that you need to borrow" and "...it is a matter of credit" when a higher value for the land is needed. The majority of interviewees agreed as one farm owner summed up: "...I believe agricultural zoning takes a person's

rights away. It might contradict my thinking in preserving, but you can't penalize a person if that is all they have. Rather than zone them to no value....there should be compensation.”

Furthermore, if large pieces of farmland are to be protected with conservation easements, a farm owner zoned long-term agriculture or long-term agriculture of commercial significance, would not have an incentive to permanently protect farmland with a conservation easement. They would receive significantly less money for a conservation easement due to development rights that have been previously diminished. One participant commented “...Yes, I would love to have more farmland. In general, the public would say they would like more, but they don't own it. When you own the land it is a different perspective.”

GMA and the Critical Areas Ordinance. This section describes points that surfaced during interviews in regard to regulatory aspects of the GMA Critical Areas Ordinance as they pertain to the location of the farmland and farming. Many of the land-use restrictions to protect Thurston County's Critical Areas, such as waterway buffers or prairie habitat protection, coincide with and are placed on land that is also used as farmland. Farm owners presented the argument that farming is not a “hands-off” approach and farmland cannot be preserved if the land cannot be used for farming. Contingent upon protecting farmland, farms must produce and be worked. Interviewees queried that if Critical Area restrictions are too inflexible, “...how can it remain farmland? It will not. It will become full of weeds.” Instead, the production of hay or managing pastured rangeland serves a dual purpose of decreasing invasive plants and

keeping open space. The open space amenity subsequently suffices other natural resource protection goals, such as maintaining and protecting water resources and drainage.

There was strong opposition to forgoing all farm activity on farmland that is privately owned in order to reach public natural resource retention goals. One respondent remarked:

What they are trying to do is to preserve farmland not Scotch Broom land or wild land. They want it to be productive. Otherwise it would be like Millersylvania (State Park) which is a preserved forest.

It was perceived by interviewees that certain proposed changes to regulations in the GMA Critical Areas Ordinance, such as the protection of the prairie Mazama Pocket Gopher, a State threatened species, may feasibly restrict future agricultural activities, such as grazing cattle. Many respondents contended, if the protection controls for all prairie species become too restrictive then it is a hindrance to farming. They described how “it is not hard to keep the cattle off the camas in the spring” or that they have always kept a certain distance from prairie oak trees or wetlands and waterways.

Due to costs and labor involved in the maintenance of a farm, it was viewed as a negative to have lands regulated, with restrictions beyond a farm use, without compensation to the owner for loss of value. The placement of a conservation easement, with due compensation, was much more favorable than regulation without compensation. A conservation easement with a farm plan was preferred by farm owners as a way to ensure both public conservation goals of protecting natural resources and habitats are intact, as well as farm goals such as grazing livestock or hay production are met. One owner explained:

When you start talking about a taking of property rights, a 30 foot easement for salmon is good for salmon, but they don't understand. It is a taking! They (regulatory agencies) must understand sustainability. If I can't mow hay within so far of a stream it takes my money. Hay is money and money is how farmers live. If I am losing 400 barrels of hay that is \$1,500 I don't have. It starts adding up. There has to be a balance. It is a taking. What do you do? People that don't have property don't understand that most of the time. It is not sustainable if you are taking something that is not enabling them to sustain the farm.

This point was particularly relevant to farms that were less than 40 acres in size.

A change of regulation, such as not being able to use an agricultural wetland (grandfathered in due to numerous years of use) was frightening if there had been substantial economic investment. It was reported that it is "very scary" to invest in a business that can feasibly be taken away. Moreover, they argued, is the alternative of one house per five acres, each with a large lawn, any better at protecting critical areas and species?

In summary, examining the detail regarding views on the benefits of farmland preservation and how themes and issues interconnect can tell a great deal about what farmland owners' value and what impacts their decisions. It also illuminates changes that are occurring over generations of time. There was a very strong value found in being a farmer, owning a farm and producing farm products. The preservation and continuance of the American history of farming and producing food was highly valued.

Yet in practice, farm owners conveyed specific obstacles to farming that resulted from farmland protection measures. There was an understanding among participants that there is a need for regulations to protect the environment, habitat, wetlands, ecosystems and farmland. But farm owners argued that they have been working their land so long that they understand how best to manage it. They implored that "common sense" must be

used when applying regulatory restrictions to farmland property. It is important to have rules to keep the minority “in bounds” yet the majority of farm owners are already caring for open space better than areas with dense development.

Chapter 7

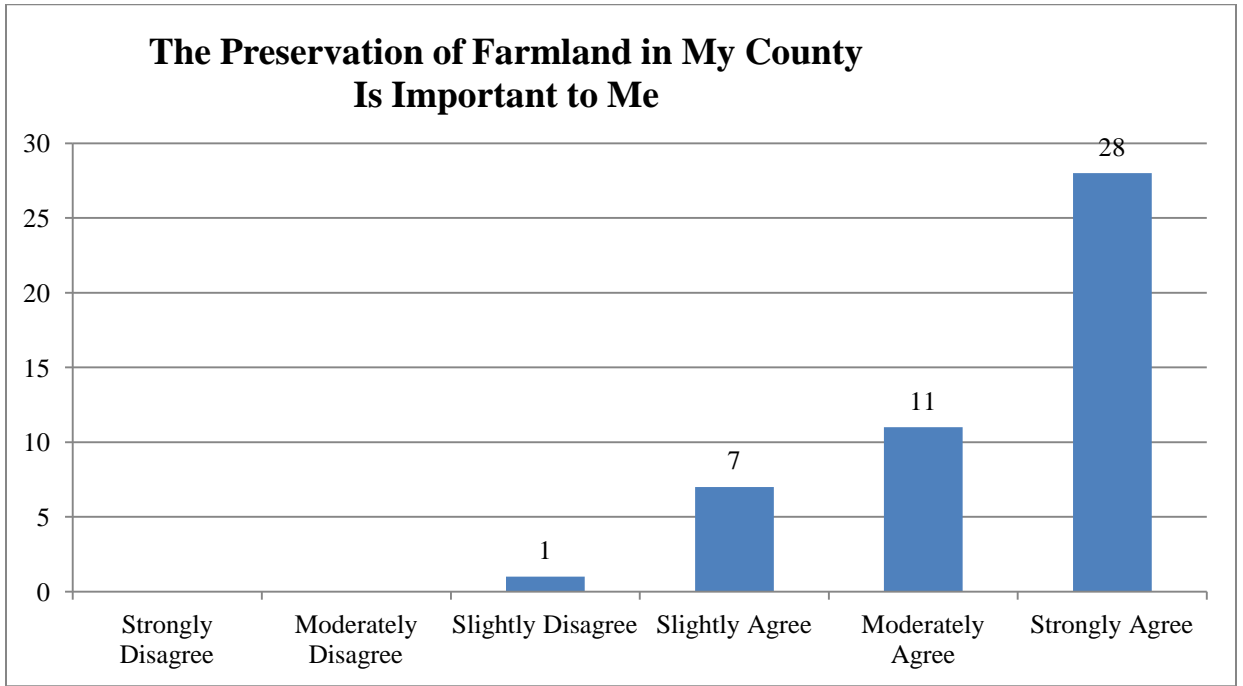
Utilizing PDR as a Means to Preserve Farmland

This chapter presents analysis of the panel's views on PDR as a method to retain farmland and describes factors in favor and against participation. It is important to understand how people conceptualize the question "are you willing to preserve your farmland?" in order for a distinction to be made as to whether or not farm owners will achieve the goal of farmland preservation through the act of selling development rights. The term *preservation* in this study was not contingent upon a farm owner selling development rights to accomplish the act of farmland preservation. It was found that participants had strong intentions to *preserve* their farmland yet the approach did not always include selling development rights or placing a conservation easement on their land.

Willingness to Sell Development Rights

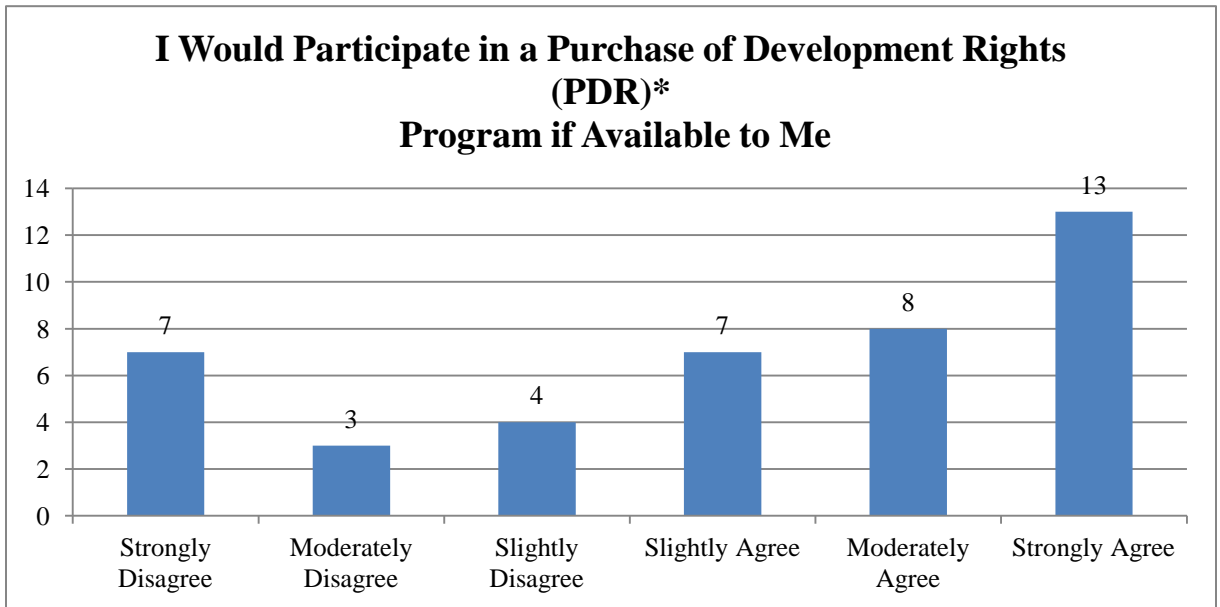
Analyses of responses from the questionnaire indicate 98% of participants agreed the preservation of farmland is important to them (Figure 2). Concurrently, when asked whether the act of selling development rights (mechanism of placing a farmland conservation easement) is a preferred method in general to achieve preservation goals, 67% agreed (Figure 3). This finding emphasizes strong consensus supporting farmland preservation yet obstacles exist making it undesirable in certain specific situations for an owner to sell development rights on their own farm. Owners were able to philosophically comment on the benefits of farms and farmland preservation, although when it came time to discuss selling development rights on their own land hesitations surfaced.

Figure 2. View of the Interview Panel on the Importance of Farmland Preservation in Thurston County. Participants n=47



Source: Interview Questionnaire Results (Question 2)

Figure 3. Commitments by the Interview Panel to Sell Development Rights on Their Own Land. Participants n=42



Source: Interview Questionnaire Results (Question 4)

Purchase of Development Rights as a Tool to Protect Farmland

Analysis of qualitative interview data shows 21%, a much smaller percentage, expressed a strong willingness to sell development rights on their own farm (Table 7). There was a varying degree of prior knowledge and understanding that farmland owners had of conservation easements and PDR for the purpose of preserving agriculture. Fifty-one percent of participants deferred to not knowing enough of the legalities and conditions to comment extensively on particulars of the PDR program or farmland conservation easements (Table 7). This makes sense as the opportunity to place an agricultural conservation easement in Thurston County for the majority of land holders has existed in the past decade only. No major programs or funding sources specifically designed to preserve farmlands have been in place since the Washington State Growth Management Act of the early 1990's.

There was a renewed commitment in 2011 by the Thurston County Commissioners when an ordinance was created to preserve farmland through PDR using Conservation Futures funding. In addition, the two federal Natural Resource Conservation Service (NRCS) conservation programs, in the farm bill (1996), Farm and Rangeland Protection Program (FFRP) and Grasslands Reserve Program (GRP), have not always had the necessary funding to cover demand in Washington State. As one land owner described:

The last few years there have been a couple of meetings in this county inviting agricultural producers in to talk about these issues. I have been surprised at the response, probably more than you realize.....It has only been in the last few years where there has been any possibility of doing something about it.....most ag producers if they had a choice, they would like to see their farm stay in farming.

Twenty- eight percent of owners agreed with the method of using PDR to preserve farmland, but stated it either did not pertain to their farmland for a variety of reasons, or specific challenges existed. These owners demonstrated a strong understanding of the concept of PDR to preserve farmland and support for the method. They supported the voluntary aspect of the program and were able to speculate as to why PDR would work in certain situations.

The support of PDR was especially strong in contrast to development rights that are removed or *taken* in a regulatory process of zoning reclassification. In an effort to retain farmland, local governments often decrease residential density on farmland and *downzone* an area. The intention is to keep large blocks of agricultural land contiguous, undeveloped and in farm use as a benefit to society. However, the value of farmland decreases with a deduction in development rights, yet the owner is not compensated for the loss of value. In the minds of the farm owners, at least using PDR there is some return to the owner for the loss of land value when development rights are extinguished.

PDR and farmland size. The details known by landowners about PDR and conservation easements increased as a function of farmland size. Seventy-five percent of farmland owners that hold greater than 200 acres of land displayed an in depth understanding of the PDR program along with its benefits and burdens (Table 7). Owners provided pros and cons on the topic and understood the theory and historical aspects of PDR programs. In contrast, 35% of owners with less than 40 acres demonstrated a working knowledge of the concept of PDR and farmland conservation easements. This may imply that standard criteria established by funding agencies to select parcels for PDR are often based on acreage size with larger contiguous pieces given priority in

conservation. Hence the programs and concept are more relevant and applicable to farms of larger size.

Strong Willingness to Participate in PDR

Twenty-one percent of participants showed a strong willingness to place an easement on their own land (Table 7). There were more farmland owners who theoretically understood and demonstrated knowledge of the PDR program (49%) than those that were actually willing (21%) to participate. The willingness to sell development rights in order to preserve farmland increased as a function of farmland size. The percentages of farm owners within different farm size categories who displayed a strong willingness to sell development rights to preserve their farmland is as follows: 5% of owners with farms less than 40 acres, 20% of farms between 40 and 200 acres and 50% of owners of farms over 200 acres in size (Table 7). These owners were looking for permanent, in perpetuity conservation, and a guarantee their land would never be developed. Those in a decision making process to determine the type of easement and collaborative funding agency, showed a high degree of confidence in their decision to place a conservation easement for agricultural purposes. They had done prior research considering the natural attributes of their land that would be protected and were actively exploring a particular conservation group to work with that would best fit their farmland's natural resource profile.

Table 7. Prior Knowledge and Willingness to Place an Agricultural Conservation Easement by Farm Size

	< 40 Acres	40-200 Acres	> 200 Acres	Total
Number of Farmland Owners	20	15	12	47
In Depth Knowledge of Conservation Easements (CE) and PDR	7 (35%)	7 (47%)	9 (75%)	23 (49%)
Willing to Place a CE or Sell Development Rights on Land	1 (5%)	3 (20%)	6 (50%)	10 (21%)

Owners with farms of larger size knew more about conservation programs and were more willing to participate in PDR or place a CE on their farmland.

Collaborative conservation agencies. The following information details the breakdown of conservation agencies of interest to owners. Three owners were currently working to secure easements with the NRCS. There were two types of farmland protection easements through NRCS designed to either protect grasslands using the Grassland Reserve Program (GRP) or rangeland, using the Farm and Ranchland Protection Program (FFRP). The intent of both programs was to allow continued ranching and the terms of the easements specified that the land will be used for agricultural purposes. The difference between the programs is that the federal funding for FRPP is matched fifty percent at the state or local county level, and an eligible conservation entity, such as a land trust, must acquire the easement. For the GRP, an owner worked directly with the NRCS to secure an easement.

Owners spoke in favor of combining programs to reach different conservation goals and to place easements on different parts of their property for different conservation purposes. Four owners were researching the feasibility to protect sensitive lands such as

wetlands and riparian areas by constructing easements through the NRCS, Wetlands Reserve Program. Two owners were interested in establishing a timberland conservation easement on a portion of their property. Four owners were interested in constructing an agricultural or farmland easement on part of their land. The land trusts and conservation groups mentioned as potential partners included the Capitol Land Trust, Cascade Conservancy (for timberland), Nisqually Land Trust, PCC Land Trust, Northwest Rangeland Trust and The Nature Conservancy.

Factors that Contribute to Unwillingness to Sell Development Rights

Interestingly, more reasons were presented against selling development rights than reasons to sell. The majority of the panel, 79%, outlined barriers to PDR and spoke of additional preferred means to achieve farmland preservation. What follows are five categories that explain a disinclination to sell development rights. The first three categories summarize perceived weaknesses of the PDR program and describe issues viewed by participants as problematic. The last two categories describe reasons specific to individual farmland characteristics and family situations. These challenges to PDR were listed alongside additional hurdles to farmland preservation, such as difficulties making a profit from farming, compounding the barriers owners faced when considering preserving their own farmland.

1. Third party agreement. The most frequently cited rationale presented against selling development rights was a desire to avoid a third party agreement. Participants relayed they wanted to be able to control the management of their own land without the assistance of a group or an agency. They perceived that they were capable of preservation

without an easement of any kind. There was concern about negotiations with a group that could lead to restrictions on best places to build, run cattle or manage woodlands and timber.

This idea was most prevalent when referring to participating in a governmental program. Participants indicated they have spent many years watching when and how government comes to be involved and what are some of the consequences. Interviewees contended that not all programs deliver the outcome they are intended to deliver. The concept is illustrated by the following description:

If government gets involved my question would be, does it do what it was supposed to do or accomplish what they are trying to accomplish? In theory it sounds good but in practice things change. Government keeps pushing even if things are not working. I have lived long enough to know things run by the government don't always turn out the way they are supposed to turn out. We personally would not sell to development, residential or otherwise. We have lots of children and grandchildren... the land will stay in the family.

To reiterate and add to the previous statement, another land owner, who has been involved in land use issues for over 60 years, provided a specific example of a policy that did not do what it is intended to do over time. He said referring to the Classified Reforestation Act (1939),

Look at what happened with the Simpson Timber Company, the state had changed the process...[Simpson] hollered they had to pay 12 ½ percent harvest fees and their competition only had to pay 6 ½ percent. Simpson who hadn't paid anything all these years.....What was a contract became null and void and made Simpson a lot of money. You see, who is to say if you buy development rights, and some day they would say it is not right. In theory it would be great but in reality it might not work that way.

2. *The value of development rights.* One major dilemma that surfaced was the question of how to establish value for each development right in the context of farms in

long-term agriculture of commercial significance. The value of a conservation easement is based on the number of development rights a farm has regardless of any desire the owner has to develop the land for residential use. If a conservation easement is to be constructed and development rights sold, the question is raised, at which zoning designation should the value be determined? Should the value be determined at the designation before the farm was placed in long-term agriculture, or after a reduction in development rights? Is it fair or ethical to reduce a farm's value by 70% and expect an owner to place an agricultural easement? One owner commented:

We have to figure a way to compensate.... Regarding long term ag land, since they are now talking about... now we are going to put (other farms) in a conservation easement, don't we really need to go back and look at before we downzoned (long term ag) and took their land?Do we make a push on that?That is the question as far as I'm concerned if we do it now for those, we should go back, it is not fair if we don't. Politically speaking there are those that say, we don't care.... If we go to an impartial judge.... going to say everything is equal, if that is what our country is about. But that is not the way things work in the real world, is it?

Owners of greater than 200 acres of land understood this issue well. The panel as a whole did not dissent on the dilemma. Separate individual owners, although it did not apply to their land, echoed the statement, "...when you downzone you do a disservice to the farmer." The higher land value was not desired in order to subdivide the land and sell to residential development. On the contrary, the participants strongly valued farming and keeping the farm intact and large enough to work. Instead they did not want to lose value because "that is how a bank looks at your land." They commented "the value of land has always been part of farming."

Certain demographics made a difference in whether a farm owner had a desire to sell development rights. If a farm owner relied on farm income for a current living, then a

high monetary land value was considered essential. A property worth more could be used to leverage a business or used as collateral for business investment. Farm owners that were younger in age or relatively new to farming also did not usually have a desire to sell development rights. One participant in this situation, first outlined basic economic challenges to cattle ranching and farming in Thurston County, and then added:

PDR would not have been appealing to me. I will tell you why. I don't want to continue to live below poverty level and get a lump sum that I can, kind of subsidize my habit of farming, over a period of time then gosh, now I have nothing. I have been supporting my agricultural operation, falsely supporting it, through my own subsidy of selling a development right. Now I have land that I can't do anything with, I have no revenue, I don't have a business that is worth anything, in the end, I made a bad decision.

In the case where an owner is retired or about to retire and would like to keep a farm, then the selling of development rights was more favorable. The interest from the sale of an agricultural easement could feasible help to cover upkeep costs, such as maintenance and taxes.

Some interviewees stated PDR may help more with preservation of open space and not, in the end, the preservation of agriculture. They commented it “doesn't really help agriculture, you can save farmland but you can't save farming....PDR is more about supplying capital to the owner for retaining open space.” According to a few participants there were also limitations to the legalities of PDR. When development rights are purchased it is about residency only and does not guarantee farming in perpetuity. It does however leave a resource available for future farm use.

3. Previous views on conservation easements. Due to limited familiarity with agricultural conservation easements or farmland easements, some land owners

commented on the pitfalls of other types of conservation easements. One land owner disclosed uncertainty on the subject of who is responsible for the maintenance of a conservation easement. This owner had bought his land with an easement in place held by the Department of Ecology to protect a river buffer. The farm owner referred to the easement as a “hassle” since it is fenced and inaccessible. It also turned out that he was responsible for maintenance of the conservation easement, even down to the removal of invasive species. Not being able to work the land but being held responsible to take care of it was certainly seen as a negative.

Others on the panel, had heard of the concept of an agricultural easement, for farming, as opposed to a conservation easement to meet environmental goals. They believed that for them to place a farmland easement would all depend on the restrictions and terms of the easement. They felt most importantly they would like to retain control over future land use. One owner commented: “I need to be able to build a fence or take down a tree if I need to.” Another owner acknowledged part of his reservations to place an agricultural conservation easement is due to witnessing conservation and the retirement of the Evergreen Dairy now conserved for wildlife habitat and river attributes. He felt that in his mind this is “a waste of good farmland.”

4. Family and the timing of decisions. Many of the reasons provided against selling development rights were a matter of timing. Some respondents said their current farm circumstances did not necessitate the selling of development rights. It may be the case that the market value of property is down, or owners do not currently have a monetary need to sell. For some interviewees, retirement was at least ten to twenty years

away. This all adds up to mean that the decision, in regard to selling development rights or any aspect of selling the farmland, could be made at a later date.

Participants relayed that they cannot predict now what their needs or what the needs of their children will be in 20 years. Although they deeply valued the saving of farmland, one owner said, “your family is your number one, that is who you look out for.” In addition, she commented, “I do not see a reason to change now if the way we have been managing the farmland has been working for 50 years.” Simultaneously, these same owners contended that they do not have plans to develop and meanwhile, they will farm, make improvements and buy adjacent land should the opportunity arise.

5. *Not applicable due to size and location.* In many cases the selling of development rights did not apply to a particular piece of farmland. If a farm was ten acres in size and located in an area zoned 1:5 (one residence per five acres) there were essentially no development rights to sell. One owner commented, “...selling development rights does not apply here, this land is too small to worry about.” On the other hand, there was one participant who owned twenty acres and assumed her farm was too small to qualify for a PDR program. But, since she had inherited the land and felt very strongly about it, she would participate in PDR if she were to qualify.

Some farms were already located in flood zones or had previously been cluster developed and no longer had development rights to sell. The potential for too much residential development surrounding a farm also made a difference in an owners’ willingness to sell development rights. One owner described how their farm was close enough to a high density growth area, that there was concern about farming next to

development or future development: "...we are all waiting around here to see what happens with zoning."

In summary, less than one quarter (21%) of the panel was strongly willing to use PDR to preserve their own farm. The majority of farm owners (79%) expressed uncertainties and doubts regarding selling development rights to preserve their farm. However, the program was strongly supported by the panel, even if PDR did not pertain to certain individual farm circumstances, the panel approved of the method. The panel favored PDR as a voluntary incentive to achieve the goal of preserving farms.

Chapter 8

Factors that Contribute to Willingness to Preserve Farmland

Overall, strong intentions and rationale in favor of preserving personal farmland existed. Analysis of interview data revealed 53% of sampled farm owners expressed willingness to keep their farmland whole and in agricultural use. This willingness did not depend on whether the owner would participate in PDR or place an agricultural conservation easement to accomplish the goal. In general, those willing described farming as a challenge but extremely rewarding. Farm owners willing to preserve farmland have been involved in agriculture and have owned farmland an average exceeding forty years. In some instances, the agricultural production type had changed over time but total acreage devoted to farming had remained stable. The participants were secure and confident in their plans to keep their farm as a farm and hence no immediate threat of development existed.

Three major categories surfaced during examination of responses that described motivations to preserve individual ownerships of farmland: conservation values, family heritage values and economic considerations (Table 8). The first category in favor of farmland preservation, conservation values, is summed up by describing different land values owners had that lead to preservation of farmland. The second category stems from a long tenure on the land and associated family heritage values. The third category is the broadest category, describing a willingness to preserve land that derived out of economic decisions made. There was cross over in the categories and many attributed more than one factor to their willingness to preserve their farmland.

Table 8. Reasons for Willingness to Preserve Land (25 out of 47 Farm Owners)

Main Consideration	Conservation Values	Family Heritage	Economic Considerations
Number of Farmland Owners	11 Farm Owners	7 Farm Owners	7 Farm Owners
Subcategories of Reasoning	<ul style="list-style-type: none"> • Environmental Value (5) • Educational Value (3) • Traditional Farming Value (3) 	<ul style="list-style-type: none"> • Heritage (7) 	<ul style="list-style-type: none"> • PRRD (Cluster Development) (4) • Government Policy and Land Use Decision (2) • Economic Viability (1)

In the first two categories, conservation and heritage values, the value placed on owning and farming land was so strong that it outweighed any monetary desire to sell the land and realize the highest and best use of the real estate value. A theme of “anything but development” ran through both categories. People spoke of how they did not want the land “all chopped up” and preferred large stands of trees or the peacefulness of a pasture. They valued open space and spoke of witnessing too much development in their time. In contrast to other categories, there was nothing that would tip the scales for participants not to preserve their farmland. This value transected other demographics such as farmland size, location and production type.

The three categories are presented in descending order from the category with the largest number of participants to the category with the least. Each category is further elaborated according to common aspects or variance in each group. Descriptive comments from interview participants are included to illustrate points. The breakdown and discussion of the three categories follows.

Conservation Values

The first willingness to preserve category, conservation values, contains eleven farm owners or 23% of total respondents. This is the largest category in the study. Close to one-fourth of participants described a conservation value as the reason they planned to preserve their farm. There was variance in the rationale that promoted conservation. For example, some owners placed an environmental value on farm conservation, whereas others described an educational or traditional farming value. A constant theme in the comments of this group was the necessity of farmland remaining a “working” landscape and not a “nature preserve.” The group also held in common that the preservation of their farm was not about money. What was truly interesting about this group was there was such a strong devotion to the land that these participants were willing to preserve their land no matter what (in one case willing to give the land away).

There are three subcategories that appear together to describe *conservation values*: environmental value, educational value and traditional farming value. The subcategories are presented first followed by a description of persistent themes and common characteristics among the group.

Environmental value of land. Physical descriptions of the land and scenery led many to be dedicated to conservation. This subcategory consisted of a strong land ethic and desire to protect natural attributes of the land such as open space or forested and riparian areas. Comments encompassed descriptions of amenities the natural environment offers such as beauty, peacefulness and habitat. People spoke of “simply liking the trees” or of their land being a special place with salmon, wildlife or mountainous landscapes,

such as the Black Hills. The beauty of the landscape prompted a protective stewardship attitude.

Coinciding with this belief was another aspect of participants' comments that was not only about the beauty of the landscape but the value of farming and interacting with the land. The following statement illustrates what participants said in regards to preservation:

Personally, I don't want buildings everywhere up and down I-5. I want to see greenbelts in between. Something tells me there is something beautiful about greenery. There is warmth in nature...the concrete is cold....I'd rather listen to birds and what is found in nature. We both grew up on a farm. We love it. Farmland is part of our inner being and is originally part of the U.S....the United States grew up on farmland. Everybody lived on a farm. We have slowly gotten away from it. It [farming] is like a tradition. I think that tradition pulls us back to it. It's not like you can make a living off of it, but it gives you a wealth of knowledge and a closer unity to nature and life around you. It gives you an education that you don't get in the big city.

Educational value of farmland. The second aspect of *conservation values* that frequently accompanied responses was a strong educational value. The descriptions of land characteristics were consistently followed by descriptions of the intrinsic educational value given to people who work and farm the land. In regards to farmland as a teaching tool, participants reported that land in general can teach us, but farmland in particular will, because you are actively involved when working the land. For example, the act of caring for farmland teaches people self reliance. One participant commented:

Farmers know more than anybody else. They know how to fix things and they can take care of themselves on the land and think for themselves. People who live on farms know how to do things.... like fix a bailer. [A farmer] needs to know land, soil content, different weeds, needs to understand so much more. The weather is incredibly important to them. When electricity goes out they need to have back up plans, backup

systems. When snowed in they have to have supplies ready. Farmers have to think long range.

A similar notion existed that working farmland teaches children. Participants spoke of benefits provided by agricultural activities that teach children how to take care of the world around them. By participating in 4-H clubs and clinics or FFA, children were poised to present themselves. They learn how to take care of land and not pollute. They learn responsibility through raising animals and public demonstrations at fairs. One participant worried that his grandchildren were growing up in an urban environment and they will not want to live on the farm, or take care of the place, because they will not know it. He wanted to preserve his land so that urban kids could come, run around and see how food is grown. Others felt their kids and grandkids were very privileged to work and have a summer job they could not get elsewhere. They learn and help care for and vaccinate cattle or limb trees. Farmland was often kept and worked to teach the next generation of children and grandchildren.

Conservation and farming. The third aspect of *conservation values* was a value placed on farming as a tradition and a way of life. Some described their views as “romantic” remembering selling milk in containers, liking historical aspects of old barns or fixing old tractors. If the historical or traditional value of farming led people to conservation, they spoke of liking the countryside and farming being a major part of their life since they were very young. A few lamented that as they look around today, all they see are houses and wonder who is going to feed all these people? They knew they wanted their children to keep the farm or if they were not passing the land to an heir, they had already decided how to preserve the farmland:

What I know is I want the land to remain as farmland and the only way I know how to do that is to give it to a farmer.... I am giving this land to a farmer. I have already put money away for his son.... There are good people around here, people who farm, it is just their life.

There were two persistent themes in the category *conservation values* that remained significant. First, was the idea that there is a working relationship humans have with the natural world and second, was the view that preservation of farmland is not about receiving money.

Farmland is working land and not a preserve. To many in this category of eleven farm owners, their conservation attitude derives as a result of working the land by cultivating hay, tending pastures, or caring for a forest or livestock. Although the word conservation is used to describe the values expressed, participants explained that their land must be worked. This group expressed immense satisfaction in caring for the land and emphasized if protecting land means leaving it “to go wild” what will be left is “hundreds of acres of blackberries.” Instead they need to be able to care for it. The preservation of farmland, woodland and forests was not a hands-off approach. Participants spoke of the necessity to have the flexibility to put up a fence or take down a tree if they need to. These interactions with the land are what teach and guide people to be responsible, care for and ultimately have a desire to conserve or protect the land.

The preservation of farmland is not about money. The most surprising part of this category was the large number of people willing to preserve their land, yet say it is not about money. The price or monetary value of the land was not the issue. Most of the farms were mid-size farms. The land was simply not for sale. It was a strong value that participants place on the belief that “...I don’t believe we own the land any more than

any other” or “my father was a conservationist....he thought the land belonged to future generations.” Money was not a driving factor in these circumstances.

In circumstances where conservation values lead owners to a willingness to preserve farmland, each landowner has taken measures throughout their lives to ensure their financial stability beyond depending on farm income. How this transpired throughout the years, or what each particular situation looks like today, varies across the group. In general participants that expressed conservation values relied on income from non-farm jobs and professions, either current or as retirement. One participant commented:

I am very conservative by nature. We felt early on there would probably be nothing left in Social Security. We prepared ourselves not to rely on selling the land for our welfare in our later years. We actually bought this property in 1955 to keep it from being developed.

This value transected other demographic factors such as the location of the farm and its proximity to an UGA boundary. Some farms experienced a lot of development pressure, residential and commercial. Participants spoke of the pressures of land value that goes from \$700 per acre to \$10,000 per acre. Owners understood that land values had increased sharply over time and if a person acquired the land 30-40 years earlier they were in a better financial position to place a conservation easement. Other farms were located further from development pressures.

The group instead was looking for a guarantee that their land will not be developed. The majority had already made plans for transfer within a family. If their children did not want the farm, then participants were researching a way to guarantee preservation. This could be through gifting the land in a will or finding a conservation

group to work with that could guarantee preservation. For some they did not depend on the value of the land in the event of placement of a conservation easement. Some participants' decision to place a conservation easement was already set. They were currently searching for the right organization to work with according to their particular conservation needs. It was also understood that the reason land goes into development was often due to economic circumstances. However, there was concern regarding contributing factors that would lead people to develop:

We have to think about things other than just money in [our] pocket. Unless you are hungry and don't have food, I guess that would be different. But if you are wondering whether you should drive a Honda car or a BMW, if you are selling your land to buy the BMW, I just can't agree with that attitude.

Others had not considered a farmland conservation easement or selling development rights at the current time to preserve their farmland, mainly because they did not know enough detail on the topic. Their preservation convictions were strong yet the means to achieve the end varied. One land owner commented:

I do the best of my ability to preserve the land.... I would hope I have instilled enough in my daughter that she would understand and respect my feelings and she would carry that on. Whether she wants to work the land or lease it out.... I don't believe you have to make it written and they abide by it. You hope you have done a good job.

In summary, *conservation values* was the largest category containing eleven participants. On average they have owned land a long time. Some are willing to sell development rights to achieve their goals, others are not. Coinciding with a desire to protect the natural landscape was a value placed on the necessity of protecting working

landscapes such as farmland. The main reason attributed to conservation was due to inherent teaching opportunities that are provided when people farm and steward the land.

Heritage

The desire to preserve farmland and the likelihood it will happen was very strong if land had been inherited. There were seven farm owners, 15% of the panel, that were willing to preserve farmland due to heritage. This group, compared to others, was the most consistent in the ideas they brought forth and in the strength of their convictions. Demographically the group also had the most in common. The farms were of the largest size, five out of seven (71%) were greater than 200 acres. The farm owners were more likely to have a full-time farm operation and be dependent on farm income. Cattle and timber were the dominant production types. In general, the group was and has been for many years directly involved in all aspects of farm management, from marketing to herd management to timber business. As was to be expected, the group had the longest tenure of land holdings. In one case, the owner inherited a small amount and then worked hard and steady to slowly acquire more land over time. The proximity of the farm to the UGA boundary did not significantly impact the owners' decisions to preserve their land. It did not matter if the farm was next to a city, directly on an UGA boundary, or three miles away. There was no hesitation in the minds of these participants to commit to long term preservation of farmland, even in perpetuity.

This group, when asked what factors would tip the scale for them to sell their land, was in strong consensus that nothing would change their minds. They had settled, they were deeply connected to their land, and were not going anywhere. Nobody was

waiting for the opportunity to develop or realize economic value of the land. The strength of heritage as a contributing factor that generated willingness to keep farmland is very powerful.

There was a portion of participants, 9% (4 owners) within the sample that had inherited land and did not share this view. In each case, participants spoke extensively regarding problems, due to location of the farm and insurmountable changes that had occurred over time, that lead to reasons why the farmland was not suitable for farming or timber. In each case, the owners were not directly involved in production and were currently leasing the land. In each case, the land had been passed down within one generation, as opposed to two generations or more. The owners recognized owning large amounts of land was a big responsibility, some even expressed guilt in their rationale as to why they could not preserve. Their reasoning is described in different categories of this thesis.

Heritage over multiple generations. The willingness to preserve a farm increases if land had been transferred within a family for more than one generation. Four out of seven respondents, who inherited land, inherited the farmland over multiple generations. They had pictures on the wall of their father's father and referred to them when describing the farm. One person indicated the idea to sell land, or place a monetary value on their land, simply did not occur to him growing up, and likened the notion to a Native American view of land, "...why does it matter what land is worth if you are not going to sell it." These participants felt greatly responsible for the legacy of their heritage. They consistently echoed deep, protective feelings of attachment to the land:

My worst nightmare is to have this place divided and sold off. I will not sell an inch of it over my dead body. When you are fifth generation it is hard to give that up....from my point of view. The longer you have something like that. If you sell these farms you cannot replace them. There is no going out and buying this much land again, unless you are a millionaire. You can't do it. Once it is gone, it is gone for good. There is no turning back on that. Unless you have several million dollars and that is what you want to do with it.

The drive to preserve multi-generational farm heritage proved to be so strong that it trumped any consideration to allow the next generation to decide what will happen with the farm. These owners articulated such deep responsibility to the land that they expressed a greater allegiance to the farmland than to subsequent generations of the family and decisions they will make:

This land is so deep in my blood, my great grandfather homesteaded the place. I have family here that has no desire to farm. They look at this place with dollar signs in their eyes which means development. Without the conservation easement the minute I am dead my kids would liquidate. They would sell to the first guy with a dollar in his pocket. I am going to prevent that. I don't want to lose the place on my watch.... My kids will inherit the farm.... they can sell it, but it will stay just like this.

Primary goal was to keep the farm whole. Regardless of who was operating the farm, there was a consistent need within the group to keep the farm intact. The primary goal of preservation within this subset of participants was to keep the land whole and not subdivided. This was necessary in order for the farm to remain large enough, to produce enough, to make the farming work. If a farm was continuously broken down in size, it would no longer be a viable agricultural operation. One producer stated that a 500 acre ranch can be divided into 20 acre pieces, but each cannot have a viable cattle operation, “a nice country estate maybe”, but not otherwise. The challenge to keep the farm large, at

least the size it currently is, weighed more heavily on the minds of these producers than the decision of who would be operating the farm. This statement reflects this attitude:

[Our] goal is to keep it together first and secondly try to figure out a way to keep it in the family, even if the family is not operating it. The third goal, a lower goal, is to have the family somehow operating it. When I'm gone they can still come here and see it and it will still look kind of like it does now.

Participants had seen how transfer of land could go awry in previous generations.

They conveyed the complexities of handing a farm down within a family as they had witnessed previous divisions and wanted to take measures to prevent splitting land in the future. In a few instances, a sibling of a parent sold part of the land or a parent sold a piece in the 1960's to pay inheritance tax. One owner incorporated the land to keep it as a farm. The importance of having an estate plan in place was strongly recounted. Another farm owner described how their farm had been assessed at four million dollars at the time of transfer, without an estate plan he and his sister would have had to come up with 55% of the total amount within nine months to pay inheritance tax. He stated there would have been absolutely no way they could have kept the farm.

This idea, of keeping land in its entirety and as a farm, prompted participants to explore options for farmland preservation with a conservation group. A large portion of participants in this category (71% or 5 owners) were willing to sell development rights to accomplish preservation goals. One advantage, those in favor found to placing a conservation easement, was to realize some of the value of the land and convert it to cash to either settle an estate or make capital improvements. They recalled "...it is a lot easier to settle an estate with cash than with a ranch" or "...I need money to do the things I want to do around here. I know it would be good for it." They spoke of the flexibility of

selling development rights on part of the farm. This allowed them to raise cattle and simultaneously protect grasslands.

When farm owners were asked whether money received in one generation, in exchange for development rights, harms or inhibits the flexibility and opportunities of future generations, a participant commented:

Does it harm future generations *of the family*? Well, the family got the money. If the father is smart he invested it, the children benefit from that eventually. They (the next generation) get some money for it, who is to gripe? That is part of heritage.....we have owned this one piece of property for 85 years.

Anything but development. In both of the first two categories, *conservation values and heritage*, there was an “anything but development” theme that accompanied the comments. So persistent was the opposition to development that it remained significant. People were not waiting to make money from development or they were not growing old and waiting to “cash in.” Many recalled stories of farmland that at one time surrounded them and was now gone. Many spent their childhood on the same land they own today. They had strong connections to their land and their “home place.” They had seen so much development and growth, over many years, that it motivated them to preserve their farmland.

Economic Considerations

There were many economic aspects to farmland preservation decisions that land owners took into account. Seven participants, 15% of the panel, described economic reasons to preserve farmland. The willingness of farmland protection due to “economic considerations” is broken down as follows. First, four participants were in process or had

already preserved a resource parcel on their land using a clustering concept or Planned Rural Resource Development (PRRD). In these cases, PRRD was considered a willingness to preserve farmland, as the owners were committed to farmland preservation at least in the short term. The preservation was temporary in nature, lasting up to 40 years as opposed to preservation in perpetuity. Second, two owners considered the economic impact of a governmental policy on their farm. Last, one owner stated that he was willing to preserve his farm and keep his land in agricultural use, as long as two factors remain steady: increased frequency of profitable years and the interest of a child to run the farm and business.

Planned rural resource development. Four out of seven participants in this category described economic considerations they had in mind when they decided to cluster develop using the county Planned Rural Resource Development (PRRD) program. Two farms were mid-size (40-200 acres) and two farms were small at less than 40 acres. Although different circumstances existed surrounding each individual decision, the decisions to use PRRD in this category were ultimately made to finance and retain a large agricultural parcel and continue agricultural activities.

As was described earlier, a cluster design or PRRD can be used as an alternative to subdividing land into 5 acre plots. The development rights are first calculated on the entire piece of property then removed to form a large resource parcel in exchange for the right to build at a higher density in a clustered area on the property. For example, if a 32 acre property is located in an area zoned 1:5 developments per acre, an owner can create two parcels, a 24 acre resource parcel and a parcel with 4 additional 2 acre lots all clustered together. The land is “locked” into that specific use for 40 years or until a city

moves its UGA boundary affecting the zoning designation. PRRD can be seen as a micro version, at the individual scale, of an agency buying development rights to save farmland. A land owner is essentially creating a conservation easement to be used for two generations.

One interviewee faced circumstances in the early 1990's of not affording necessary expansion to operate a dairy successfully, yet wanted to keep the farm as intact as possible. The PRRD option allowed the family to conserve the majority of the land and realize a portion of land value by selling smaller pieces, sectioned into one acre lots, for rural residential use. The family was able to keep more land in pasture than would have been allowed under the standard 1:5 zoning designation. The owner commented, "...It is so frustrating, we have been waiting so long, and now that the moratorium struck...it is not an economic gain, we are not making money. It is the only way I see to keep the farmland. I am trying everything I can to preserve it."

Cluster development was used, in each case, to make farming feasible. In one instance, the farm owner said he wanted to grow fruit and needed water rights. He found a piece of land with water rights and bought the land at development price. The PRRD option was a way to finance the farming operation. A similar notion was expressed by another respondent who bought a dairy on a bankruptcy sale. The owner wanted to give farming a try, but simply could not stay "above water" without the PRRD option. In each situation, a lot of thought went into the unique cluster design. Owners considered the orientation of homes facing the resource parcel, or were first and foremost sensitive to the needs and perspective of the farmer, when placing the development. Each owner made

the point that there was demand for this type of housing, since a lot of people like to live in the country and look at farmland.

Comments did exist in regard to negative aspects of PRRD or cluster design. The only example, mentioned in three interviews, was a clustered development called the *Field of Dreams*. Since clustering allows for development to occur at higher density on a portion of the property in exchange for conservation of a larger resource parcel, the amount of development is dependent on the initial size of the farm. In the case of the *Field of Dreams*, the farm was large enough to make the subsequent ratio of development to resource parcel too dense in a rural area. Participants living close by cited an increase in traffic and described the area as being “nothing less than a small city.”

Land use policy prompts preservation. Some economic considerations had to do with keeping the business of farming intact, yet not denying that the land value is a major part of the farm business equation. In one scenario, a farmland owner was willing to sell development rights on his farm as he planned to retire and lease his dairy. He knew he would not need to borrow or go into debt to support the dairy at this point in his life. If this was not the case, he maintained he would not be able to sell development rights:

You always have to borrow back. Dairy prices go up and down, all agriculture does that whether it is corn, wheat or whatever. You have your times when you are losing money and you got to make it through those to make money again during the good times. Constantly, even though you have paid off the place, you have to go back and borrow. The only thing they will loan against is your place. That is the economics part of it. If they take that value away, which they have a big part of it....then....if I could get one house per acre here, I wouldn't have any trouble with any banker. Not that I want to put those houses here, just the opportunity to do that. That is the fight between preserving a farm. If I sell development rights off this then you can't go back in debt. You won't make it. You have nothing to borrow on.

In conjunction, the owner also indicated that revisions to the Critical Areas Ordinance stipulating restrictions of land use on prairie habitat will “take” development rights anyway. These restrictions could feasibly affect his property decreasing the overall value of the farm.

Another farmland owner made the decision to go into farming by buying a piece of land that was already zoned long-term agriculture, due to 90% of the farmland’s location being on a flood plain. He explained that it was a different situation if a restriction, such as a zoning requirement or wetland restriction was in place at the time of purchase. The owners knew they could not develop when the farmland was purchased:

Personally for us, it [flood zone] is great for our hay business. Everybody whose farm used to do hay doesn’t do it anymore. All kinds of people have animals that want to buy hay from us. We have it and nobody else does because they cut their land up into lots and sold it... We will keep this land in the family. We bought the place with zoning in place. We knew what we were getting into.

Economic viability of a farm. There was one farm owner out of 47 interviews who attributed the reason to keep farmland in agricultural activities was due to a successful farm business that provided a livelihood. As long as the farm remained viable in an economic sense, there was no immediate reason to change land use. This was the only farmland owner who said the farm could stand on its own without selling development rights and still make a profit from farming. Other than this one farmer nobody on the interview panel said they would preserve their farmland and not sell to any other use because their farm was a successful business. This finding shows that very few farm owners are willing to preserve their farm due to the value of a farm business.

This thesis data shows a strong willingness among farmland owners to preserve land for a variety of environmental, social, and economic reasons. Thirty-eight percent of the interview panel will preserve their farm, no matter what, due to conservation and heritage values. Nine percent of owners have already “sold” development rights through PRRD. In each instance of PRRD, the owners claimed the cluster development model was the only way they could afford to operate a farm resource parcel. In each case, a lot of thought and consideration went into the orientation and design of the development.

There was evidence within the *willingness to preserve* group that these owners were investing in agriculture. They all maintained that agriculture requires dedication of time and money. The group also contended that their decision to have a farm may not be “completely rational” and some “just like it or grew up around it” and ultimately value it. They were trying to preserve their farmland.

Realizing the value of a resource parcel either through PRRD or placing a farmland conservation easement gave an owner options to finance farming or guarantee farmland preservation at least in the short-term. PDR provided owners with an option to realize the development value of land, certainly favorable to development rights that could be “taken” through regulatory action. Only one farm owner within the entire panel was willing to preserve a farm due to the farm being economically viable as a successful farm business.

Chapter 9

Factors that Contribute To an Unwillingness to Preserve Farmland

Certain conditions bring about reluctance and hesitancy among landowners to commit to long-term farmland preservation. Approximately 47% of the interview panel (22 farm owners) exhibited a disinclination to take steps that would ensure, in perpetuity, their farmland was protected from future nonfarm use. The group consists of thirteen farm owners either retired or close to retirement and nine farm owners who are relatively recent investors to agriculture and simultaneously too young to retire. Proportionately, of the twenty-two farm owners, more owners with farms of smaller size were unwilling to commit to farmland preservation in perpetuity. There were thirteen farm owners who owned farms less than 40 acres in size, five owned mid-size farms (40-200 acres) and four owned greater than 200 acres of farmland. Farm owners gave reasons why they would not restrict their land by selling development rights or placing a farmland conservation easement or described fundamental difficulties keeping land in agricultural use.

Interestingly, this finding does not indicate participants have immediate plans or plans within the next 10-25 years to convert farmland. In fact, only 4% of the entire panel (2 farm owners) strongly indicated agriculture was no longer a viable land use option for their farmland. They either had farmland for sale, or specified they were confident that their children would sell and divide the land to be development at the time of succession. Those remaining, 43% of the panel (20 farm owners) were hesitant to commit to something that was over a generation into the future, when challenges to farming currently existed. Owners were reluctant to preserve farmland in the long-term.

In the short-term there was evidence of farm improvements, such as investments in a new roof for a barn or fencing.

The older generation of owners specified they would not sell their farmland in their lifetime, did not have plans to currently change, yet they could not and would not “dictate” what happens after they die. Their children may or may not sell the farmland. On the other hand, the more recent investors to agriculture, pointed toward the economic side of farming. Some had leveraged the value of their land to invest in a business or had purchased farmland at contemporary prices. They were reluctant to “protect” the farmland. Instead their thoughts were on managing a small farm business in order to maintain the investment or to recover current costs.

Three main categories surfaced that describe disinclination to preserve farmland. The *unwillingness* categories are listed in rank order, beginning with the category that has the largest number of participants. They are as follows: *economic considerations*, *geographic considerations* (geology or development) and *family considerations* (Table 9).

There were interconnections and overlap between the categories as well as within, and within subcategories. There were areas where respondents felt conflicted, yet overall, they listed multiple factors that prevented dedication to farmland preservation in perpetuity. What follows is a description of key factors within each category that explain the dominant reasons not to commit farmland to long-term preservation.

Table 9. Reasons for Unwillingness to Preserve Farmland (22 out of 47 Farm Owners)

Main Consideration	Economic Considerations	Geographic Considerations	Family Considerations
Number of Farmland Owners	10 Farm Owners	6 Farm Owners	6 Farm Owners
Subcategories of Reasoning	<ul style="list-style-type: none"> a) Size- Too Small b) Changes in Agriculture c) Concerns about Land Use Policies d) Land as an Asset 	Location Not Conducive for Agriculture <ul style="list-style-type: none"> a) Too Much Development b) Rocky Soil c) Cannot Expand d) Annexed into a City 	Do not want to commit children to a future land use that might not be in their best interest

Economic Considerations

The first category, *economic considerations*, comprises 22% of the total panel of 47 (10 farm owners) who contributed economic considerations as the dominant influence in their decision making process. This category includes explanations of economic barriers to farmland preservation that are described in the subcategories of economic reasoning. The subcategories are as follows: insufficient farm size, changes in agriculture over time that hinder economic gain, concerns over land use policies that prevent agricultural practices and the value of land as an asset (Table 9). In each subcategory, owners described how factors compound and build upon themselves to create a “snowball effect” decreasing the likelihood their farm will be preserved. Too many obstacles existed that prevented them from dedicating land to farm preservation in perpetuity.

Small farm size. As was discussed in Chapter 5, the size of landholdings was a determining factor in landowners' preservation decisions. Landowners with less than 40 acres indicated they did not see the sense in placing an agricultural easement on a piece of land that is too small to make an adequate living entirely from farming. They may have understood the concept of an agricultural conservation easement, but to them it was not a great fit. The concept was not applicable to certain farm circumstances. In the context of farmland preservation, some of the owners' farms were too small to compete, too small to make a profit, and all of this fundamentally lead to the fact that they owned farmland for other reasons.

Owners gave a variety of reasons why agricultural opportunities were limited with small farm size. First, there was not enough space to diversify the farm business with the use of mixed production types. A landowner could not combine other resource production, such as small forestry, with vegetable and livestock production. Small farms did not have 50-100 acres to dedicate to a forty-year timber harvest rotation, as a supplement to whole-sale vegetable production or cattle production. Second, a farmer was limited to certain agricultural production types on smaller acreage. Large livestock, such as beef cattle, are not conducive to small acreage size. Owners indicated they simply did not have the acreage required to grow enough forage to feed cattle year round without having to purchase hay or alfalfa. One individual surmised "if you are buying feed, you are not making money." In a few cases, it was necessary for owners to transport their cattle to graze fields owned by friends or relatives. Additionally, many owners described problems that arise when cattle wander out of fenced areas, especially when the farm was located in an urbanizing section of the county. The cattle containment issue was often

explained grouped together with associated costs, such as fencing or time needed to repair. These issues were magnified when the farm was less than 40 acres in size since there was not enough space for the cows to wander. Last, in order to produce vegetable crops, it was necessary to own fertile ground and own irrigation rights. It was also necessary to have the time and labor required to operate a vegetable crop business. Obstacles existed to farming on small acreages subsequently leading owners to not be inclined to preserve smaller parcels of farmland.

Essentially, these owners had other motivations to keep their land in agricultural use. They may have grown up around horses or cattle or the care of livestock may offer the opportunity to relax and get some exercise after a daily desk job. The motivations of different owners to farm on a small scale varied. One common element was that money was not the driving factor, summed up by this comment:

If you are looking for financial reward in a small farm you are going to be disappointed. If you are looking for satisfaction in what you do and enjoyment of what you do and quality of life, you will be rewarded greatly. Most farmers have an emotional attachment to dirt. They all say you are not in it for money. That is obvious.

Owners realized their current farm size was not large enough for an economic gain. Small farms had a thin profit margin, if any at all. They relied on outside sources of income in order to keep farming. Most had figured out a way for the farmland and farming to pay for itself. Small farmland provides enough pasture and forage to raise cattle for auction that in turn pays for property tax, winter feed bills, and other maintenance expenses. As one owner commented, “it is offsetting, it pays for itself, and meanwhile I get to do what I like to do.”

Changes in agriculture. The second economic factor that contributes to unwillingness to keep land in agricultural use is caused by changes in farming over time. This factor surfaced in interviews with owners of farms of larger size, mostly over 200 acres. Changes in Thurston County agriculture, such as the decline in dairy farms, reduced the area's overall agricultural activity. Owners also reported there were no longer enough producers in the area to make production facilities feasible. In the words of one owner, "conventional agriculture west of the Cascades *cannot* compete with enterprises on the eastside of the state." Decreased ability to compete was attributed to high land value, high input costs such as fertilizer and livestock services and regulations due to a wetter climate. One owner commented:

Why are we saving farmland here? There is so much farmland out there nationally. This is not a good agriculture community. You can't buy farming equipment locally.... It is better to sell and buy in an ag community...the land value is less. The soil is kind of marginal here, regulated a lot due to abundance of waterways. Why put in a business without support, there is no processing here because there are no producers. Why preserve the land as farmland? You can't make a living.

These obstacles made it difficult in some instances to start a career or make a living even when the land had been inherited. A large portion of a decision to place a conservation easement or preserve a large farm, hinges on a land owner's ability to make an economic living from farming. This was true even though some land owners, who are leaning toward an unwillingness to place a conservation easement, demonstrated strong ties to their land. Either they had worked the land all their lives or had inherited it. They felt a duty and great responsibility to make the farmland productive, although they expressed frustration in their limitations to keep the land in agricultural use. If an

economic living cannot be made in agriculture, owners then listed more reasons against farmland preservation than in favor.

Due to changes in agriculture over time, the compound factors add up to reasons given wherein owners saw less and less of an ability to keep farmland in agricultural use. One farm owner outlined limited prospects for keeping a working farm after retirement, even on a relatively large farm for the Thurston County area. The owner stated that lease agreements do not cover what is owed in taxes on farm buildings that have been improved over the years:

It is a scramble to find out how you can make it pay the taxes. If I can figure out a way to do something here that will pay the taxes then it is going to stay in the family. So far that is not working in the last few years. There are other costs too, upkeep, maintenance not counting equipment and so on. That is a factor, you know, for me to pass on this farm, I have to consider whether I am passing on a detriment. Something that is going to cost my heirs to keep it, just for the...for what?... just to have a farm?...that no longer is economically feasible in this geographic area in Thurston County..... Since our zoning and our setbacks and so on, have changed, and agriculture has changed, where it is not economically feasible to raise cattle to sell for replacement heifers for dairies is an example, because the dairies are gone.... If I live twenty years, the cost in that twenty years, negative costs, and I am saying this as honestly as I can, is a big factor in determining whether I should keep this a farm.

Concerns about land use policies. The third contributing factor to an economic unwillingness to preserve farms had to do with regulations that limit agricultural activity. Owners described setbacks on rivers and waterways that decreased the total farming area. There was also reference to regulation prohibiting forestry activity above Critical Aquifer Recharge Areas such as McAllister Spring. The farmland that was located above McAllister Spring, a designated geologically sensitive area and the source of municipal water for the city of Olympia, was restricted in the types of forestry and agricultural

activity permitted. One land owner commented that “preserving the business of agriculture is fine but preserving land is nonsense if you cannot do economic activity.” He said his view was rooted in the belief that all economies are based on five forms of resource extraction: agriculture, forestry, mineral, fisheries and manufacturing. He added “show me a country without natural resources and I’ll show you a country without an economy.” Land use policies can affect the economic output of agriculture.

Previous change in farmland preservation policy in Thurston County has led to frustration and doubts regarding preserving working farms. In 1993 farmland preservation efforts within the Growth Management Act (GMA) at the county level led to designation of certain farms as long-term agriculture of commercial significance. A Transfer of Development Rights (TDR) program was established to compensate for *gainers and losers* of land value. Development rights would theoretically be transferred to an urban *receiving* area where a developer would purchase the rights to build more densely than zoning allowed. The farmland owner in the *sending* area would receive compensation for the loss of value created when the farmland was downzoned to one residency per forty acres (1:40). According to one participant, at the county level no value was ever established for each development right and if a value was not assigned, then each development right is worth absolutely nothing. The owner also contended that developers in Thurston County do not have an incentive to buy the ability to build more densely within an urban growth area because no requirement or need exists for them to do so. This demonstrates that TDR currently is not used effectively in Thurston County as no proof exists there is a market in the receiving area and very few development rights have been purchased in the sending area.

In Thurston County, policies designed to be in compliance with GMA objectives to protect natural resource areas can be in direct conflict with objectives to protect agriculture. Thurston County's Critical Areas Ordinance helps protect the area's unique prairie land and habitat for many threatened and endangered species. Although only one person out of forty-seven interviewed said "I cannot preserve my land due to government restrictions," the argument concerning the preservation of private land for threatened species surfaced many times. The majority of participants owned rangeland, much of which is located on prairies, making the current issue of protection of the Mazama Pocket Gopher unfavorable.

Owners did not want their land restricted from agricultural use due to protection of the Pocket Gopher habitat. The gophers were seen more as a liability than a benign species. One farm owner described how gophers get into hay and grain and create holes in the ground that can cause a cow to break a leg. Consequently, a lame cow does not look good at auction and an owner's return on investment can decrease. In addition, having to pay for a gopher study or pay to relocate gophers was frustrating. In some cases people said yes, it was enough to tip scales, "...why preserve the land if you can't work the land? It is hard enough already to make money." Above all things, owners felt their practices do not hinder or harm the prairie gopher habitat. The Critical Areas Ordinance was designed to protect natural resources, including agricultural lands, not to pit one against another. One owner commented:

I don't want to overreact to what the County is trying to do. But they must realize it causes a hardship to people.....I think the land owner is a better steward of the land....I'm not going to do something that would ruin the land, that is my livelihood, a farmer is not going to do that.... The oak trees, the purple butterfly....Cows have been here for over a hundred

years, they have been grazing this place forever and everybody seems to be getting along just fine. If they want to come in and regulate it and say you can't use it then the owner needs to be compensated.

Asset value of land. The last contributing factor to an economic unwillingness to preserve farmland was the view that land is an asset. Depending on the time land was acquired and the age of the owner, land was perceived as an investment or an asset that would appreciate and be needed for retirement. Participants said they were not in a position to relinquish their land but might feel differently in 10 years. They were not close to retirement and no other reason exists to sell and receive the current value of any aspect of the land. Instead they wanted to limit future restrictions and keep options open. Owners also believed that even at a future date the selling of a "farmland easement" would all depend on the value of the easement at the time. One owner commented, "I don't know much about conservation easements but it would have to be a fair market deal. I don't want to break the land up, it is my 401K." Some, as newcomers to current landholdings, foresaw they would like to pass the farm to a child with an interest. But indicated it was not applicable at this date in time. The owners were too young to retire and knew in the future they would still need to consider what they will get from the investment. Uncertainty existed as how to finance the situation today:

We are recent investors, all our money over the years has gone into buying larger and larger chunks of land. When we retire it would be nice to hand it over to our daughter, she shows an interest as she is currently in vet school. But how can we do that without considering where we have made investments? Thurston County strikes me as a county that may be better suited for building houses. The agricultural production is small. If this farm was gone tomorrow it wouldn't make a difference in the big scheme of things. We need to sell some of the land now, we are way in over our heads mortgage wise, how could we do that with an easement? All investment is locked into the land.

Another owner tied the issue of limited prospects for profitability with a farm business here in Thurston County to the desire to keep land value high in the event land can be leveraged for a different business venture. He commented:

Part of the business of agriculture is the value of the land, it always has been. Why would you waste your investment, your value to finance farming? All the money is gone and you still need to finance the farming. This is the business model of farming.... Try to take a business plan to a bank and get funding, you cannot. Farming as a business does not increase with inflation, land value goes up, inputs go up but returns are kind of a flat line.

To summarize this group of 10 farm owners, it was seen that, in general, farm owners with small acreage size listed multiple factors, mostly associated with limited business prospects that contributed to unwillingness to preserve farmland in perpetuity. Also, certain changes in agriculture over time make it difficult to compete at the state or national level when owning a farm in Thurston County. Owners of farms in long-term agriculture questioned the method of using a TDR program that does not place a value on each development right or compensate an owner for the loss of value. Owners questioned whether land use policies designed to protect natural resources other than agriculture are in direct conflict with those designed to protect agriculture. Some owners, the majority younger in age, did not want to compromise the value of their farmland by selling development rights and instead viewed land as an asset.

Geographic Considerations

The second category, *geographic considerations*, contains 13% of the panel (6 farm owners) who indicated the location of their farm was not conducive to agriculture in the long-term. The farms were either too close to development, located on rocky prairies

with marginal soil, could not expand due to surrounding suburban and commercial growth, or have been annexed into a city. The explanation of subcategories follows.

Adverse effects of development in close proximity to agriculture. The more development at the periphery of farms the less likely agricultural land will be retained. Specifically, this pertained to farms that were small or mid-size and farms that produce livestock. As a reminder to the reader, 43% of the interview panel owned farms less than 40 acres in size. It is also important to realize that 70% of the panel raised cattle and or hay as their primary production type. Small cattle operations were common in the area and there were challenges to raising cattle close to areas of commercial or residential use. Respondents detailed that cattle often escape through fenced areas. This created a liability for the owner as they were responsible for any property damage created when cows stray. Owners can be fined, or sued if a car hits their animal, even in areas zoned long-term agriculture. It was described that nonfarm owners did not know how to handle cattle that is loose. The problems associated with cattle going through fences are exacerbated if development surrounds farmland. In contrast, owners stated that their farm neighbors had the skills necessary to handle livestock, were comfortable with large animals and willing and able to help when they were loose. As the number of farms decreased in the area and more residential development was established it became more difficult for each farm that remained. One owner commented:

That is what I would look at, if we sell development rights and we keep 47 acres but everywhere else they change zoning to 1:2, who is going to buy 47 acres when we do sell? If that kind of development starts coming in then it becomes less and less desirable to preserve. You don't want to be sitting in the middle of developments all around you on a piece of farmland. Because, again, if your cows get out, or something, you start getting liability issues with the neighbors.....We keep a big insurance

umbrella.....This piece of land is too small. It would be different if we had 300-400 acres. With 47 acres it is too small to be productive.... economically ranching doesn't work at that size. You can turn it into a riding stable for the development around you.

There were limitations to other direct agricultural activities. In farmland preservation literature, often times it is considered an opportunity to have agriculture located on the periphery of a city for direct marketing capability. This is accurate if the farm production is compatible with residential land uses, such as small animal and vegetable production. However, there were challenges if the production type was large livestock. The more urbanized an area becomes the less compatible it is with farming, in particular ranching:

If you want to bring people on your land to enjoy agricultural activities you must pay for insurance policies. They increase if you have large animals, especially a bull. Small operations cannot afford insurance policies as such. You would have to be big. In reality keeping large animals close to urban activities is challenging.... My daughter was riding her horse when a motorist honked and sped by quickly. Good thing she was an experienced rider and the horse didn't get spooked, it could have been tragic. People don't understand agricultural activities. They like the idea of living in the country but don't want to be inconvenienced on their way to work...Police don't even know how to handle a cow that is loose.

As was previously discussed in Chapter 5, if a farm was greater than 200 acres and located one mile or less from an UGA boundary the development pressure was not felt as strongly, the large size helped withstand the negative externalities of sprawling growth patterns. If a farm was small, then owners talked more about the surrounding circumstances with development. If farmers bordered other farmers they saw it as a great advantage.

Rocky soil. Owners in the interview sample described how they were limited, in many areas of the county, to only produce beef cattle or forage such as hay. This was due to geological characteristics of the region dictating the type of agriculture that is feasible.

The only thing you can grow in this prairie is livestock. Our ground here is 8 inches of top soil and 65 feet of gravel. Come August it looks like Eastern Washington, all the grass is dead. You cannot use it for row crops. Right here all it is good for is grazing and hay. If you go further to the west you can raise row crops. This here you can grow grass. It is ideal for hooved animals because it drains...our horses and cows are never standing in mud.

Some owners had considered different agricultural production types but knew they were limited. They were limited to only what they can produce without irrigation water rights, and with the soil types they have. This made them more unwilling to take measures that would preserve their farmland in perpetuity.

Cannot expand. In the context of farmland preservation, small farmland owners took the opportunity for expansion into account. In some instances, future expansion was not possible. The surrounding area was already developed for residential or commercial purposes. It may be the case that agricultural parcels were located within an urban growth area boundary. Without an opportunity to increase production size, owners indicated they need to retain the value of their property. For some, this gave them the ability to sell land at market value and afford a larger piece of farmland at lesser value located further from urban growth. Even if surrounding land had not been converted to nonfarm use, it was difficult to increase landholdings and support the investment with agricultural returns. One land owner summarized, “we would love to buy the neighbors land but can’t afford it, even at auction prices...we have invested too much already.”

If the surrounding area was zoned 1:5 residencies per acre the density was still too high to give farmland owners a feeling of security to commit to a conservation easement in perpetuity. A few indicated they took a risk buying farmland at contemporary prices in Thurston County in areas they say may be better suited for houses. They may have recently invested in the land. Or they knew their work schedules provide limited time and they realized the time investment necessary to manage acreage. They also realized they do not have control over surrounding land use decisions. The potential that neighboring land owners had for future adjacent development could trigger unwillingness for a farmland owner to place a conservation easement:

I would want to be able to sell my land if my neighbor developed.... My wife's family owns a dairy in Boistfort valley, the area is zoned 1:40. They think it is not a good deal. But I think it maybe, is not a bad deal. Kind of hypocritical with the way I feel toward this. But, I don't want people around me....That is one of the reasons my neighbor sold us the property. He knows we don't have any intension to build anytime in the near future. If his grandson, who bought some of the land around me, starts to build and I have houses creeping towards me. That would be something that would preclude me. I don't want people living so close. You find neighbors on your property vandalizing with quads. I've had to call police when they are playing stupid, tearing up my grass, cut a hole in my fence. As you get more pressure like that it can change your mind quite a bit. When people disrespect what you own, I don't want to deal with it.

Annexed into a city. According to the SSCFLT Farmland Inventory, in Thurston County 75% of farmland is located within three miles of an Urban Growth Area boundary. In this study, of the 47 farmland owners interviewed, 51% were located less than one mile from an UGA boundary. This means half of the farms are close to or within the UGA or in three cases (6% of the panel) the farmland had already been annexed into

a city. Under these circumstances, many challenges arise for agriculture. One land owner commented:

Even though the land was inherited, I cannot save it, because you cannot farm here. It has been annexed into the city, people see the land as a park... they throw garbage. I don't know what will happen when they develop all around us. We are already almost surrounded now. The school is just behind us. Kids cut through.... people in apartment houses like to through stuff onto our place. We have had a lot of problems with people along side. Keeping a farm with development all around would be difficult.... We are not allowed to have fires on the place. We have piles of brush that are rotten. When you are within the UGA you can't burn..... People complain about the smell of farming activities. It smells when manure is broadcast, silage creates a smell. People complain about dust.... It is not feasible to keep a farm in the place where we are.

Family Considerations

The third category, *family considerations*, contains 13% of the panel (6 farm owners) who did not want to commit their children to a future land use that may not be advantageous to the needs of the children. This final category that broadly defines an unwillingness to preserve farmland, or place an agricultural easement on land, can be described as considerations owners had of the decisions their heirs will make in the future. In this category, people unwilling to restrict their land by selling development rights in order for a designation of farmland use only, were more interested in their children deciding what the best use of the land was for them. Participants reported that a key consideration against placement of a conservation easement for them was that they do not know what the circumstances of their children will be in the future. One owner commented:

I cannot dictate what future generations will do. I am not going to dictate. I didn't make my money from farming, it came from rentals. I hate to say

it but it is true. I don't know what the future circumstances will be for my children. I will not dictate from the grave. I do not want to restrict their decisions. My children will probably sell when I am gone.... things have changed. For now, I have enough brains to run cattle. I will not sell in my life. I am making improvements and I am investing... in a new roof and fencing.

The majority of respondents in the category *family considerations* (4 out of 6 farm owners) owned less than 40 acres. These owners described how it was difficult to make money farming a relatively small piece of land. Coupled with limited profitability, many owners experienced challenges associated with the location of their land in an urban or commercial area close to a city. People viewed, in these circumstances, they were better off giving their children an asset that can be converted to cash. Especially in the case of having more than one child, cash was easier to divide than land. These respondents were instead focused on living in the present, taking care of land the best they could and enjoying the greenbelts, the wildlife and beauty for now. But they did not see the sense in “locking the land in” to one use, especially if that use was not relevant for the future needs of their children.

In conclusion, there were a variety circumstances and reasoning that lead owners to decide against measures that would keep their land in agricultural use in perpetuity. Economic and family considerations, as well as geographic locations immerged through analysis to be the dominant factors that prevented owners from being interested in preserving their farmland.

The largest proportion of owners unwilling to commit to farmland preservation (10 out of 22 farm owners) outlined economic factors that contributed to their decision making process. In particular, there were many barriers to having a profitable farm

business. If a farm was less than 40 acres in size, owners described the motivations they had for owning farmland, beyond providing a livelihood or even a profit. Owners of farms over 200 acres reported that on a larger scale, they have experienced difficulties competing using “conventional agriculture” with farms in Eastern Washington or in other parts of the country. They attributed this struggle to changes in agriculture over time that has occurred in Thurston County, such as a decline in small dairy operations leading to an overall decrease in farm activity. This included minimal livestock services, and associated farm support businesses that make it more expensive and difficult to run a farm in Thurston County. The younger and more recent investors to agriculture who have owned their land for comparatively less time, expressed disinclination to sell development rights to obtain the goal of farmland preservation. They viewed their land as an asset and did not currently need to “cash in” the value or make a long-term decision regarding land use, especially if the land could feasibly decrease in value.

The decision of what to do with farmland was not an easy decision to make. Many respondents had owned the farmland for many years and had strong ties to the land. Owners gave a lot of reasons to protect farmland and were strongly in favor of farming and farmland preservation, at least *somewhere* in the country. The older generation of owners knew land preservation and stewardship was a great responsibility. They indicated they would not change any land use designation on their farm in their lifetime, but ultimately the final decision, will be made by their children. For those that were younger, the decision to place a conservation easement was not a pressing issue because of their age. They can afford to wait and see what happens.

Chapter 10

Discussion, Conclusions and Recommendations

This research was conducted to examine factors that contribute to Thurston County farmland owners' willingness or unwillingness to preserve their farms when they are located in urbanizing areas. Additionally, the aim of the study was to discover preferred methods by farm owners to achieve farmland preservation goals. The method of particular interest in this study was the Purchase of Development Rights (PDR) program. This government program, in order to prevent farmland loss as a public benefit, pays farmland owners to extinguish or retire any right to develop on farmland. The inquiry was designed to discover whether or not farm owners are willing to sell development rights on their farm in order to retain farmland in perpetuity. Moreover, what were the key driving factors that would tip scales in favor or against participation?

The results of this study indicate that very few farm owners were willing to sell development rights to keep their farmland in agricultural production. In 79% of farm circumstances, owners hesitated to preserve their farm by selling development rights. A variety of reasons were provided as to why owners did not think PDR was an applicable approach considering their farm circumstances. Actually, more reasons were provided against participation in a PDR program, than in favor. Farm owners discussed compounding factors that prevented a desire to "lock in" their land to an agricultural use in perpetuity.

The rationale against PDR varied and was complex, but overall, motivations against PDR were based on limiting factors to farming successfully in Thurston County.

Owners wanted to be successful in agricultural endeavors, yet challenges surfaced in practice. As always, there were areas of exception. For example, some interviewees planned to keep their land in continued agricultural use. They were going to *preserve* their farmland and keep their farm as a farm. They had absolutely no plans to change any farm circumstances, yet they did not have a desire to use PDR as a method to accomplish the goal. This means that it does not necessarily follow that an unwillingness to sell development rights indicates a farmland loss or lack of commitment to farmland preservation. Nevertheless, persistent patterns emerged that described physical and socioeconomic forces that limit the ability to farm, have a lucrative farm business and retain farmland in perpetuity.

Physical Limitations

The interview panel described physical limitations to agricultural production in Thurston County. Small farm size was certainly a limiting factor. Close to half of the farmland (43%) within the study sample can be described as small farms (less than 40 acres in size). For certain production types, such as beef cattle or dairy farming, it was necessary to own large amounts of land to make an economic gain from farming. If cattle production was located on a small farm, there were physical challenges with surrounding residential use, such as containment of cattle. For other production types, such as fruit and vegetable production, it was necessary to own the *right kind of farmland*, suitable for cultivation, with high quality soils, flat ground and access to water or irrigation rights. Additionally, very few of the small farm owners (20%, or 4 out of 20) had a fruit or vegetable farm business and even fewer (1%, or 1 out of 20) indicated the business provided an economic livelihood.

In conjunction with small farm size and limited economic viability, certain geographic characteristics in Thurston County determined the type of agricultural production practiced. Most of the farm locations had geological characteristics that were not suitable for cultivation. According to the literature, plus descriptions provided in the interviews, Thurston County's topography is laden with abundant hills, rocky prairie land, timber and woodlands, as well as waterways and wetlands. The physical characteristics of the farmland and the type of agricultural production an owner practiced were often interdependent. As an example, rocky agricultural lands were primarily used as pasture for cattle grazing, Farm owners explained how the dry, rocky topography drains easily, and this together with a wet climate, helped ensure the cattle had dry hooves and remained healthy in the winter. In this context, the farm owners with smaller sized farms and farmland were limited in the type of agricultural products they could produce and supply. Subsequently, they were limited in their opportunities to make an economic gain.

Additional physical limitation to farmland land preservation that respondents described included regulatory impacts, initially designed to decrease urban sprawl and protect natural resources, of the Growth Management Act (GMA, 1990). The long-term projected growth in population in Thurston County signifies that the urban growth areas (UGA) surrounding cities are large. Approximately half (51%) of the farms within the sample are located one mile or less from and UGA boundary. Some farms lie within city limits, as well as within urban growth areas. These farms may have had attributes worth protecting, such as good soils, but owners stated it was difficult to have a small or mid-size farm close to residential or commercial development. Descriptions of ensuing

problems with surrounding development included trespassing, vandalism, hurried car traffic, inability to expand operations and most frequently, challenges when cattle get loose, which, the panel indicated, often do. Plus, there was always the potential for adjacent farmland or open space to be converted to a non-farm use.

Although, if a farm was over 200 acres in size and located close to an UGA, the farm owners were much less likely to report on problems associated with development and fragmentation of farmland. These farms were large enough to withstand development pressures. Nonetheless, proportionately within the panel, far fewer farms (26%) were of a large size. In the majority of farm circumstances, owners were affected one way or another by growth and city impacts.

To further compound physical limitations, farm owners explained there is a lack of agricultural infrastructure in Thurston County as well as regulations that limit agriculture. Places to buy fencing and machinery were limited, as well as livestock auction yards and other services. A lack of custom hay operations necessitated each producer to own necessary and expensive equipment. The decline in dairies in Thurston County has led to limited prospects for cattle businesses, such as raising heifer replacements. Farm owners also described setbacks due to GMA regulatory constraints that limited agriculture in order to protect sensitive critical areas, such as waterways for salmon, wetlands or prairie habitat. All of these constraints limited a farm owners' options for type and quantity of agricultural product produced, especially if the farm was small in size.

Socioeconomic Limitations

Socioeconomic factors also prevented interviewees from committing to farmland preservation in perpetuity. These considerations depended on demographic aspects of a farm owners' situation, such as when a farm was acquired and its size, the income produced on the farm, along with the age and family structure of the farm owner.

The average age of panel participants was approximately sixty-three. In general, a younger age indicated a participant was not oriented toward or inclined to currently make a decision concerning farmland preservation. Similarly, newcomers or recent investors in agriculture, who purchased farmland at contemporary prices, were not thinking of preservation of their farmland. From these perspectives, there was time to wait and allow investments to be paid off or assets to mature, and no need to sell development rights existed. Alternately, an older age indicated farm owners had different priorities. In general, they had owned farmland longer, had decreased intensity of agricultural production, often leasing land, and the topic of farmland preservation, or what to do with their farmland, was on their minds. The decisions they would end up making depended on other demographic factors, such as farm size and location.

Due to high land values, there were limitations to acquiring large amounts of land. As a matter of fact, not a single farm over 200 acres in size had been purchased since 1990. This shows how difficult buying a large farm at contemporary prices can be, as well as an unavailability of large acreages. This indicates private buyers are not able to buy sufficient farmland at market price and use the land for agriculture.

Although this study did not collect specific income data, 57% of the panel commented on the economic challenges of farming and elaborated on the struggle of maintaining a farm business. According to USDA statistics, the total value of agricultural operations in Thurston County is \$118 million, and may seem like a thriving industry. However, this figure includes revenue from industries, such as aquaculture, agro-tourism and nursery production, that are not represented in the interview panel. Instead, results of this study show how difficult it is to make a profit in the majority of farm circumstances, producing hay and beef cattle. If it was not possible to have a successful business then it was often not easy for a farm owner to commit to preservation of farmland in perpetuity. These limiting circumstances contributed to the hesitations that participants displayed as they considered a commitment to preserving their farms.

Who will Preserve Their Farmland?

This analysis showed large-scale support among farm owners for retaining farms, at least temporarily, even considering limiting physical and socioeconomic factors. As a group, the interview panel showed longevity (an average of 30 years) in ownership and dedication in the operation of farmland. This may be an indicator of stability in the total farmland supply in Thurston County, at least in the short-term. More than half the panel (53%) was willing to preserve their farmland for the duration of their lifetime. This included owners who had chosen cluster development (PRRD) as a means to farmland preservation. Overall, there was more of a willingness within the panel to keep land in agricultural production and pass the land to the next generation as a farm.

The likelihood of an owner willing to preserve farmland, in perpetuity, increased if they had owned their land a long period of time. In general, the longer the farmland had been owned, the larger the farm was. The strength and value of owning land within a family over multiple generations triggered a willingness to take measures that ensured farmland was kept large, whole and permanently protected into the future. In instances of intergenerational ownership, family and land ties were so strong that 100% of owners planned to preserve their farm. In general, those willing to participate in the PDR program, or place a conservation easement to protect farmland, owned large, family farms.

None of This is Cut and Dried

Interestingly, even the farm owners *unwilling* to commit to farmland preservation, as was described in Chapter 9, did not have immediate plans to convert their farmland to a non-agricultural. Owners hesitated to commit to something twenty years down the road but for now they will continue to farm. The perception of the social benefit of farms in the future was far enough into the future, that it was difficult to imagine circumstances. There was tension between the farm owners' private needs and the general public good. In many cases, family ties and the flexibility of future generations to make land use decisions were stronger than the public value or social benefit of preserving farmland.

Overall, the panel strongly supported farming and viewed the benefits of farmland preservation to be the provision of national food security and the beauty of open space. Then again, when respondents considered reasons to preserve farmland particular to

Thurston County, the general pattern was to describe individual gains or losses opposed to societal benefits derived from farmland preservation.

The key drivers to retain farmland at the individual level were for a better quality of life, an educational value or due to strong land ties derived from working the land for many decades. Respondents described farming as an “essential part of living” that contributes to a lower stress level. Many described farming as an “incredible teaching tool” and it is the “only way to learn.” Owners liked the privacy, independence, beauty and freedom that owning a farm provides. In short, they “wouldn’t do anything else.”

Farmland Preservation in Theory and Practice

How the interview panel conceptualized land conservation, land stewardship and farmland preservation differed. In the minds and motivations of individual farm owners, the reasons for willingness or unwillingness to keep a farm did not always align with the ideals of the farmland preservation movement. In general the panel supported ideas such as “no farms, no food” but in practice, farm owners were limited in what they can produce and what they can supply. What society and the public desired in theory did not always align with the personal needs of individual farm owners. They were farming for other reasons. They may support the ideals and say “who wouldn’t want more farms?” but in practice it was difficult to make farming work.

Most of the farm owners in the panel did not operate high production farms. Most were not supplying a lot of food for public consumption. Very few farms matched a description of iconic farm images with rows and rows of carrots and leafy green vegetables growing. This discrepancy perhaps is not well known. When consumers go to

farmers markets, they expect a wide variety of colorful root, stem, leaf and fruit and seed crops. Paradoxically, within this study panel 70% of production is in hay crops and beef cattle, most produced on a small scale. There may be stable farmland ownership in Thurston County but this does not mean there is stability in the production or generation of a wide variety of high carbon, human consumption food products. Stating this does not disregard the importance of other production types. These were part of the whole system and contributed to the overall agricultural production, farm economy and infrastructure. Of course, not everyone can produce vegetables and most producers were limited in time and quality of land to do this. However, it does illustrate an inconsistency between farmland preservation goals and the actual make up of farms in practice.

This study uses a bottom-up approach to find factors that impacted farmland preservation decisions. Through examination of collective reasoning on the topic of farmland preservation, patterns emerged that showed distinct farm ownership viewpoints. The long-term experience provided by the research panel added an expertise and insights that deepened the understanding of motivations and limitations to farmland preservation. These viewpoints can in turn be used to inform public policy regarding resource retention. The data can also be used to advise farmland preservation groups in the establishment of goals that best support farm retention.

Recommendations

If public desire exists to prevent farmland loss in Thurston County, then how can the public support this goal? If we really want to keep farms in Thurston County, what

can the public do to support farms in the area? How can research best direct efforts to support farm owners in the preservation of individual farms?

Recommendations to Thurston County. The results of this research showed that the best way to support the farm community is to continue the Current Use Agriculture program (see pp. 14-16). Measures to preserve farmland that use a tax or monetary incentive to assist in the conservation process are well supported within the panel. Current Use Agriculture was often perceived by land owners as a sufficient way to preserve agriculture, and certainly an imperative program. The program was favorable even though it was a temporary farmland preservation measure. They stated they would not be able to afford to keep their farmland if they had to pay full tax. This is an indicator that an immediate loss of farmland will occur without the Current Use classification.

There was also support within the panel for the use of cluster development designs or Planned Rural Resource Development (PRRD, see pp. 28-29). Farmland owners liked the option of PRRD, in order to realize a portion of the economic value of their land, at the same time, retaining a resource parcel to farm. The PRRD program can be seen as analogous to selling development rights. However, this recommendation comes with precautions. In this study PRRD was, more frequently than not, an economic last resort as a way to finance a farming operation from the sale of development rights. This may indicate that farms participating are in a precarious financial situation. In addition, the development that occurred on PRRD was also only favorable within the panel if the original farm size was small (less than 40 acres). The program only worked with small farms.

In the view of the panel, Thurston County's use of Conservation Futures funding to conserve farms or ranches that have willing owners to participate is a good use of public funds. In the view of the panel, it is in the public interest to keep farmland as large and contiguous as possible, and keep it from further fragmentation. The public benefits derived through permanent conservation of farms go beyond the production of food and are seen in the provision of open space, flood prevention, wildlife habitat and a strengthened farm economy. There are multiple benefits to farmland preservation at any size. Farmland retention leaves a resource available for future generations and it also is beneficial for the local economy to have individual people produce on their land.

The Purchase of Development Rights program is a method and means to farmland preservation that farm owners supported. In this study, more owners supported the method of PDR than the amount willing to participate in the program. This research revealed that in theory, farm owners approved of the program, especially in contrast to development rights that are taken, but in practice, PDR was not applicable to most farm situations, especially farms of small size. Possible participation will come from farm owners with farms that exceed 200 acres (26%) but most on the panel are not of this size. There may not be the demand for PDR or participation in the program that is indicated in the literature.

Today, very good farmland is most likely not considered for Thurston County Conservation Futures funding. The GMA placed long-term agriculture of commercial significance into low density (one unit per 40 acres) zoning categories, without compensation for loss of value to the owners. It is not clear if these farms currently qualify for PDR or Conservation Futures funding. They may be viewed as *already*

protected, since they are restricted from dense development. However, farmland protected through zoning, due to potential changes in zoning requirements, continues to be at risk for future development. The best way to ratify the taking of value that occurred is to compensate the owner for value loss either through PDR or the placement of an agricultural conservation easement. If Thurston County reexamines buying development rights on farms zoned long-term agriculture of commercial significance, more farms of an efficient size, containing good soils and willing owners can feasibly be permanently protected.

Even if long-term agriculture of commercial significance was to be considered for funding, the farms would have to sell development rights at a discounted rate due to their current zoning classification. The value of their farmland is artificially low and they are negatively impacted by the long-term agriculture zoning designation. Those that are commercially significant are being penalized for their success. The long-term agriculture farmland is also high quality farmland and most likely some of the best in Thurston County. There must be a realization that long-term agriculture is not preserved in perpetuity. Otherwise and most importantly, the County runs the risk of spending public funds on preserving farms that are not indeed the best farmland.

Recommendation to SSCFLT. Recommendations to the South of the Sound Community Farm Land Trust (SSCFLT) are to equally support acquiring farms, to be held in trust for future farming, and purchasing agricultural easements on farms. The latter is for owners who do not wish to sell their farmland, but are looking for a guarantee, as much as is feasible, that their farmland will remain farmland. There are

advantages to each strategy and using both will provide the most benefit to the most farm owners.

In instances of acquisition, the farmland can be leased to vegetable growers. This can help secure a diversity of food production, mostly time intensive vegetable or small livestock production may be a goal. This kind of assistance may be warranted with small vegetable producers. There is evidence they may not be able to acquire land or expand otherwise. This research showed that most vegetable producers are not actually the owners of the farmland. A land trust can serve as a catalyst to secure larger pieces of farmland. This allows prime land to be purchased, held in trust in perpetuity for future intensive food production. A partnership with a land trust can feasibly help new or established farmers acquire access to sufficient land and water rights to have a viable farm business. However, resolving water rights issues is a limiting factor to success until done.

There was more of a need within the panel, as most farm owners did not wish to sell their land, for a land trust, such as SSCFLT, to hold agricultural easements to protect farmland. Although only 21% of the panel stated they were strongly willing to sell development rights on their farmland, an even lesser amount (4%) currently had land for sale. These easements can theoretically help farm owners, who are looking to protect their farmland with legal restrictions placed on the land to prevent fragmentation during times of succession. The easements will also help to support the local agricultural economy by retaining more of a farmland resource base and hence the opportunity to increase agricultural production and secondary farm services.

Recommendations to Thurston County citizens. If the public wants farms and farmland in Thurston County, then public support for voluntary programs that retain farmland must be a priority. These programs, such as PDR, Conservation Futures funding (directed toward farmland protection), PRRD and Current Use Agriculture, all provide public amenities and give compensation to the farm owners for the public provision. An additional benefit is that farm owners support these programs, due to the voluntary aspect of participation, and meanwhile the public receives open space, environmental services and local farm production.

If the public really wants to support the agricultural community, the best way to support is to buy at a local level. Each resident of Thurston County should understand that proportionately, compared to other production types, the majority of farmland in Thurston County is dedicated to hay cultivation and beef production. Support of this production must exist along with continued support for other direct marketing opportunities, such as farmers markets and CSA production. More importantly, and above all things, consumers need to be willing to pay more for local production. There are many private costs attached to the social benefit of farmland preservation. If the public wants decentralized agriculture and not extra-large industrial farms, then consumers need to pay the true costs of preserving the business of farming and retaining farmland. There must be an increased and continued demand and support for all local Thurston County farm products. These include meat, timber, dairy, Christmas trees, and hay production as well as patronage of farm stores, local farmers markets and other direct farm buying opportunities. In the end, this effort will support producers, keep farmland in production and as a result, preserve farmland.

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Appendix A- Research Questionnaire

Issue	Strongly Disagree	Moderately Disagree	Slightly Disagree	Slightly Agree	Moderately Agree	Strongly Agree
1. The loss of farmland in my county is a concern to me.	SD	MD	SD	SA	MA	SA
2. The preservation of farmland in my county is important to me.	SD	MD	SD	SA	MA	SA
3. I would like my personal land to remain in active agricultural ownership and use.	SD	MD	SD	SA	MA	SA
4. I would participate in a purchase of development rights (PDR)* program if available to me.	SD	MD	SD	SA	MA	SA
5. I agree there are potential financial benefits (tax savings) acquired by <i>donating</i> land in the form of a conservation easement.	SD	MD	SD	SA	MA	SA
6. Market-driven measures, such as PDR programs, should be the primary strategy for farmland preservation.	SD	MD	SD	SA	MA	SA
7. Regulatory measures, such as zoning, should be the primary strategy for farmland preservation.	SD	MD	SD	SA	MA	SA
8. A combination of market-driven and regulatory measures should be the primary strategy.	SD	MD	SD	SA	MA	SA
9. I am willing to notify a local farmland trust to potential land sales.	SD	MD	SD	SA	MA	SA

10. Circle the following statements that describe farmland preservation strategies familiar to you.

- a. Acquisition of farmland by a non-profit entity and leaseback to owner or other farmer
- b. Purchase of development rights (PDR)
- c. Transfer of development rights (TDR)
- d. Other: _____

11. Circle yes or no for the following statements.

I am familiar with farmland easements. Yes No

If such programs were available to me I'd be interested in opportunities. Yes No

*PDR is a voluntary program where a land trust or some other agency usually linked to local government makes an offer to a landowner to buy development rights on the parcel. Once an agreement is made, a permanent deed restriction is placed on the property.

Appendix B- Interview Questions

1. How many acres do you own? How many acres do you operate? How long have you owned and operated? Describe your operation.
2. Describe any interest in farmland preservation that you may have. What benefits, burdens or critiques do you see in farmland preservation? This can be for your own land or in general.
3. How did you come to these views?
4. Would you consider preserving your own land? Why or why not?
5. What would preclude you from participating or what would tip the scale for you to participate in preservation?
6. Describe any planning you have done for transition or succession of your farmland after you are unable to care for it.
7. What do you think are the reasons farmland should be preserved in Thurston County?
8. What do you think the methods for farmland preservation should be?
9. Any other comments?

Appendix C-Questionnaire Results-(Not Displayed in Thesis)

Figure 4- The Loss of Farmland in My County Is a Concern to Me. Participants n=47

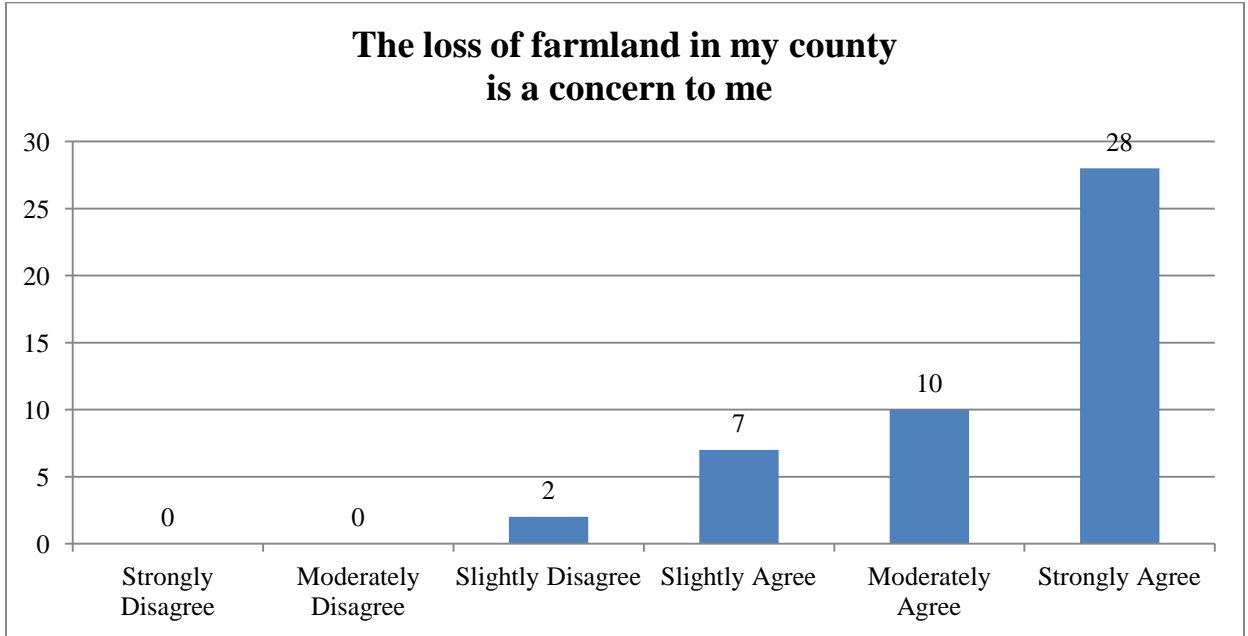


Figure 5- Participants: n=47

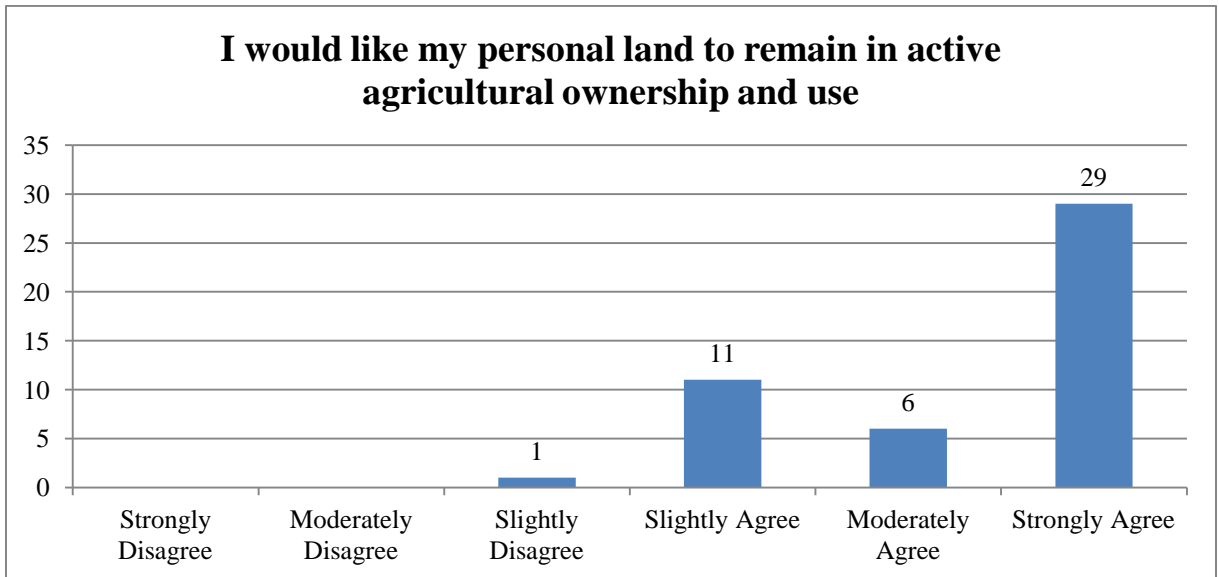


Figure 6- Participants: n=41

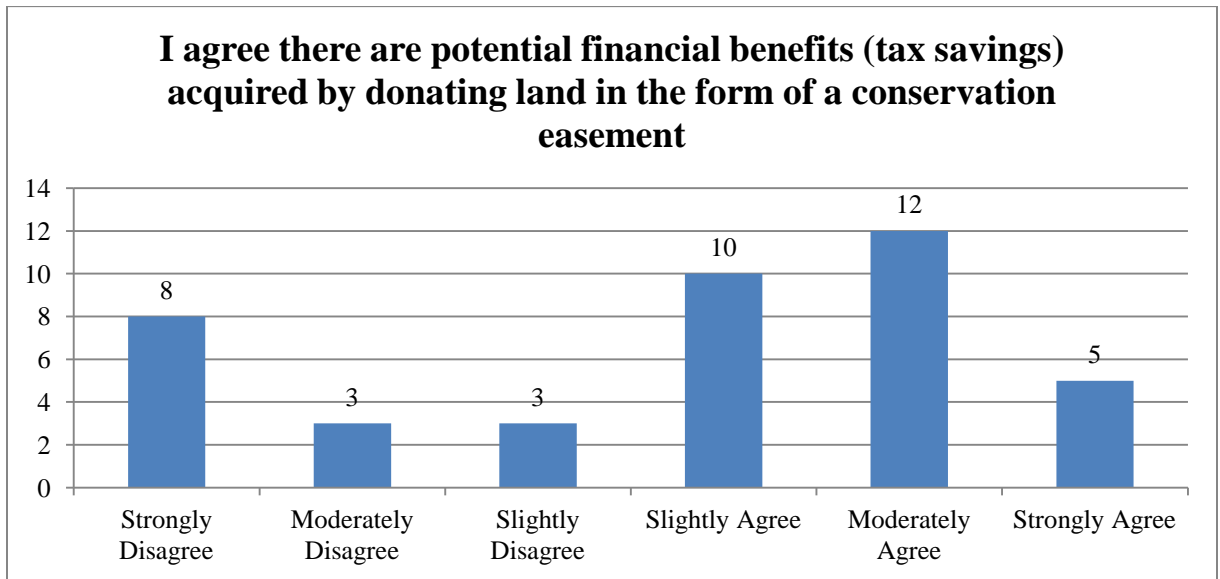


Figure 7- Participants: n=45

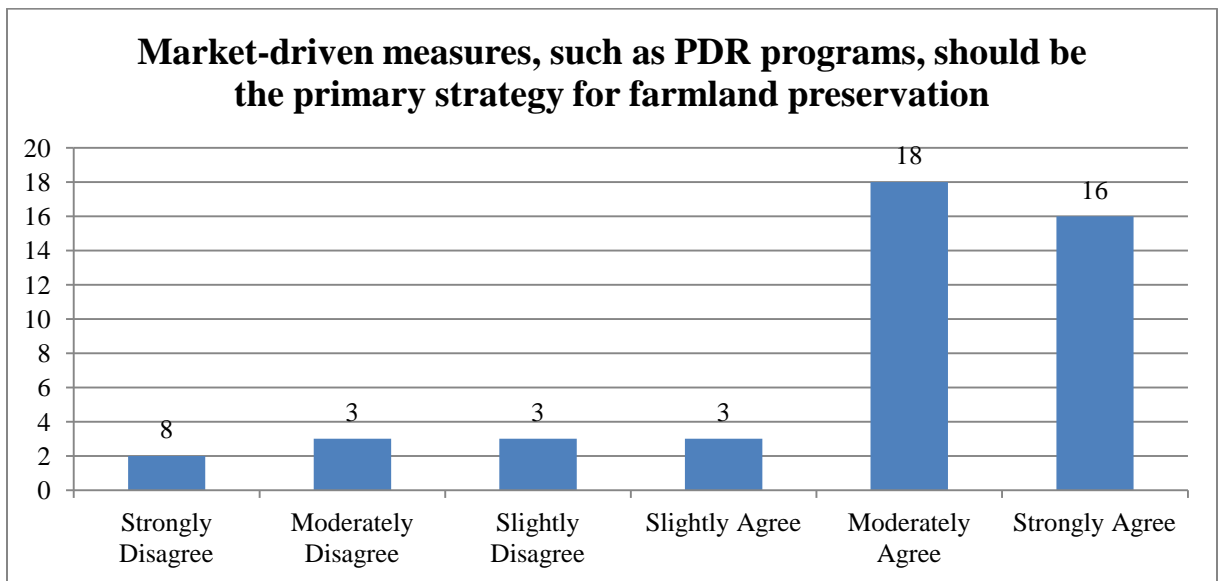


Figure 8- Participants: n=29

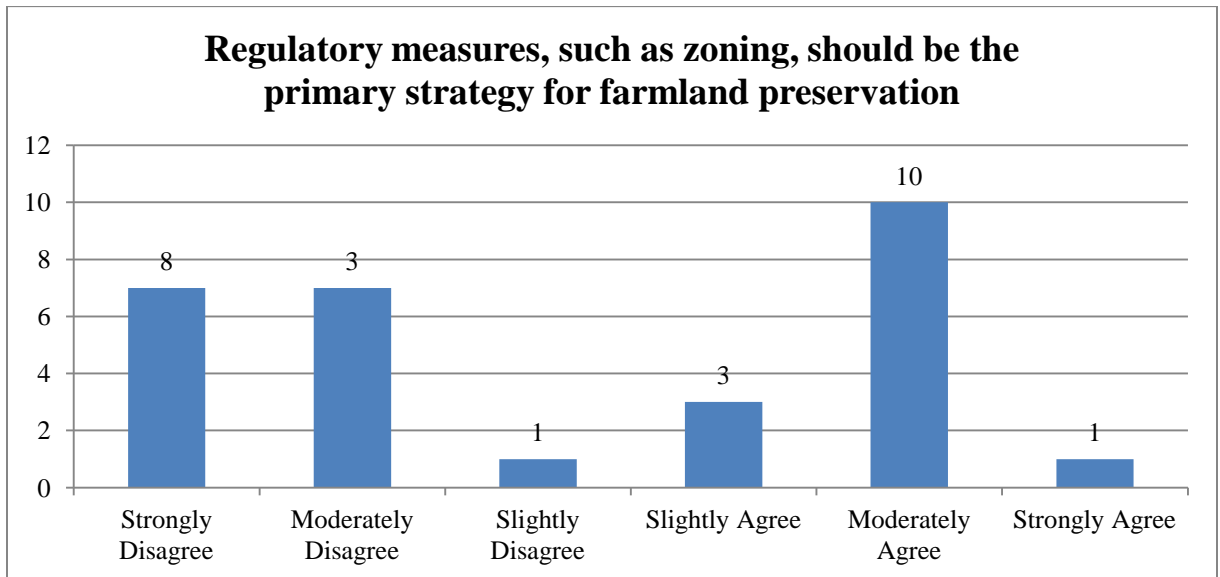


Figure 9- Participants: n=26

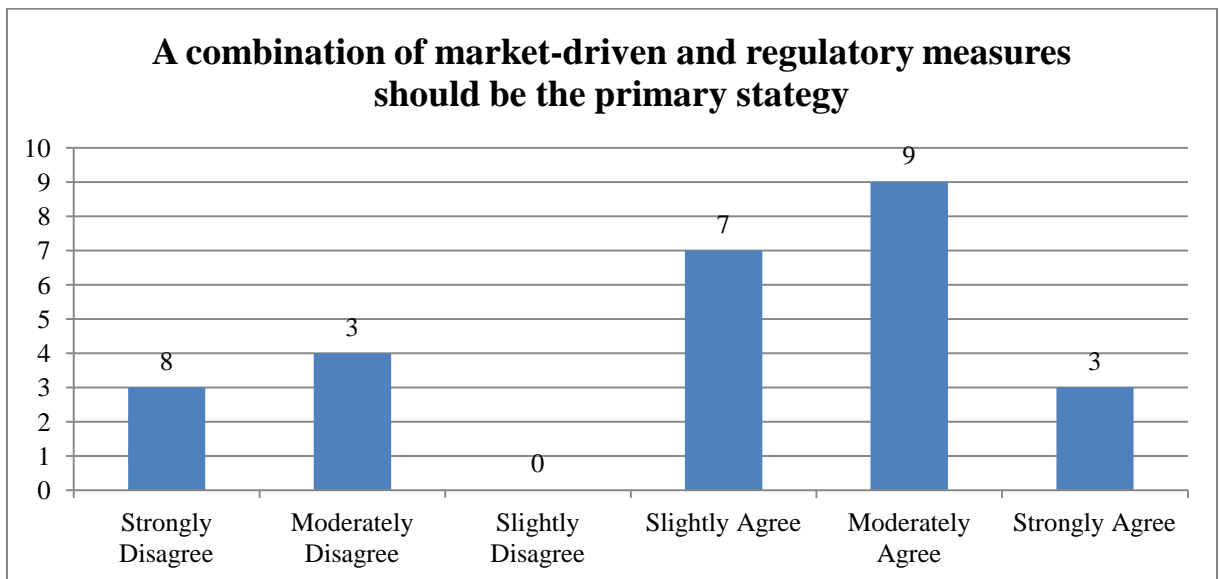


Figure 10- Participants: n=46

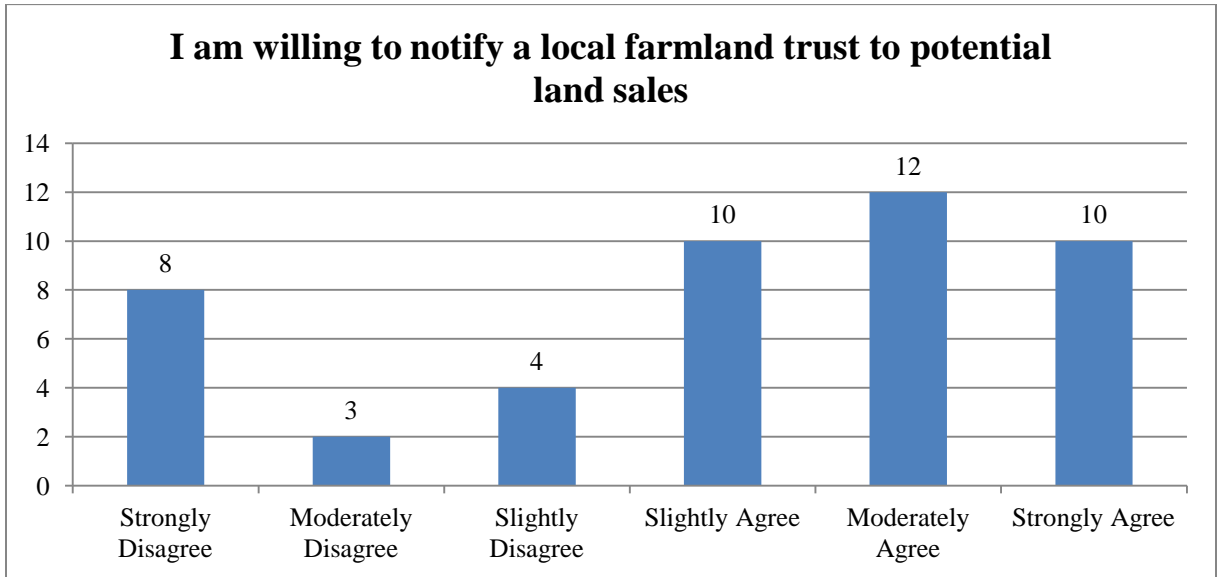


Figure 11- participants: n=47

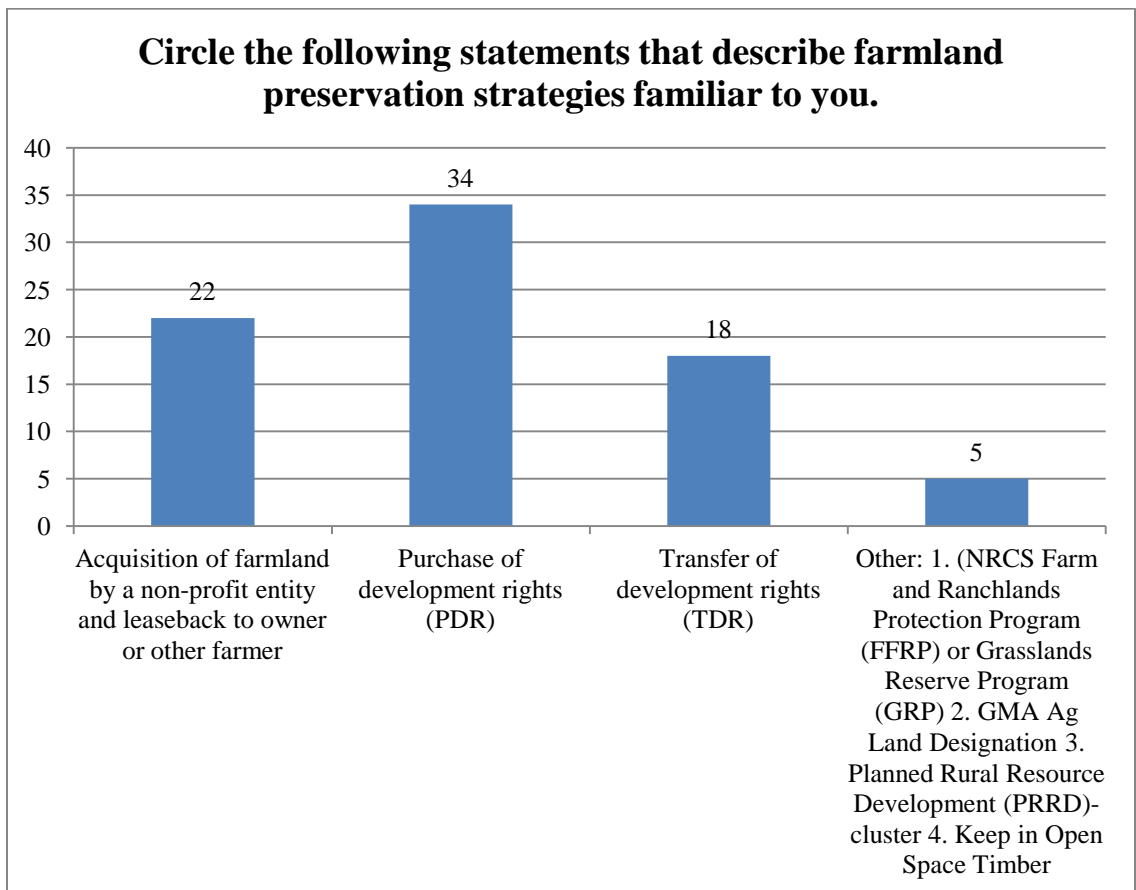


Figure 12- participants: n=47

