

CHAPTER 3

NATURAL RESOURCE LANDS

I. INTRODUCTION

The Natural Resource Lands chapter of the Comprehensive Plan addresses goals and policies for the four main resource lands in Thurston County: agriculture, aquaculture, forestry, and minerals. Natural resource lands are key to Thurston County’s economy, community, and history. These areas provide valuable products and raw materials that support jobs, create tax revenues, and are important components to the local and regional economies. Additionally, natural resources also provide aesthetic, recreational, and environmental benefits to the public. Protection and enhancement of these natural resource lands is paramount to the county and its citizens.

Thurston County implements GMA’s statewide goal (see sidebar) through policies and programs tailored to our local community’s vision for the County’s natural resources. This chapter is separated into sections by the four major natural resource industries:

- ❖ Agriculture
- ❖ Aquaculture
- ❖ Forestry
- ❖ Mineral resources

2018/2019 Update: Critical Issues (To be added)

II. PLANNING CONTEXT FOR NATURAL RESOURCE INDUSTRIES

Natural resource industries are discussed within the regional County Wide Planning Policies that guide coordination of planning across the cities within Thurston County as well as the County itself.

- ❖ The boundaries of designated urban growth areas should be compatible with the use of designated resource lands and critical areas. (2.2)
- ❖ Expansion of Urban Growth Boundaries must

GROWTH MANAGEMENT REQUIREMENTS

The Growth Management Act (GMA) sets the following goal for natural resource industries:

“Maintain and enhance natural resource-based industries, including productive timber, agricultural, and fisheries industries. Encourage the conservation of productive forest lands and productive agricultural lands and discourage incompatible uses.”

RCW 36.70A.020 (8)

To support this goal, counties planning under GMA must:

- designate agricultural lands, forestlands, and mineral resource lands “not characterized by urban growth and that have long-term significance” for the commercial production of that resource.
- adopt development regulations “to assure the conservation of [designated] agricultural, forest, and mineral resource lands.”

RCW 36.70A.170

RCW 36.70A.060

demonstrate that urbanization of the expansion area is compatible with the use of designated resource lands and critical areas. (2.4)

- ❖ Reduction of an Urban Growth Boundary must be compatible with the use of designated resource lands and critical areas. (2.5)
- ❖ Concentrate development in urban growth areas and protect rural areas by designating rural areas for low intensity, non-urban uses that preserve natural resource lands, protect rural areas from sprawling, low-density development and assure that rural areas may be served with lower cost, non-urban public services and utilities. (3.1.g)
- ❖ Support the recruitment, retention and expansion of environmentally sound and economically viable commercial, public sector and industrial development and resource uses, including the provision of assistance in obtaining funding and/or technical assistance. (7.2)
- ❖ Build a vital, diverse and strong local economy, including job opportunities that support community and household resilience, health, and well-being, by nurturing urban and rural agricultural and food oriented businesses, and protecting resource lands. (7.5)
- ❖ Provide for public access to natural resource lands, while ensuring that uses and economic activity which are allowed within those lands are sustainable. (10.7)

III. AGRICULTURAL RESOURCES

A. COMMUNITY VISION:

The residents of Thurston County envision a diverse and thriving agricultural industry that is able to respond quickly to changing market conditions. They recognize the essential role of land conservation and local food and crop production in maintaining the quality of life and long-term sustainability of the community. In addition, they recognize the multiple benefits provided by farmland, including wildlife habitat and flood control. The community also recognizes that maintaining viable agricultural resources requires a partnership with the farming community.

The community as a whole takes responsibility for conserving prime farm lands, promoting local markets, minimizing incompatible land uses, and providing other community support. This includes support for regulatory processes that are sensitive to the needs of farmers and that recognize the need to protect the environment. Farmers take responsibility to preserve soil fertility and ground and surface water quality, and to promote a land stewardship ethic for existing and future generations.

B. BACKGROUND:

Agriculture in Thurston County has an important and varied role. Although Thurston County is not often noted as a farming county, local commercial agriculture accounts for almost 15 percent of the

County's land use and produces over \$120 million worth of farm products a year (USDA, 2012)¹. According to data collected for the Thurston County Voluntary Stewardship Program, land used for agricultural activities within the County is estimated at 125,600 acres, and accounts for nearly 25 percent of land use when non-commercial agriculture is included (TC VSP, 2017, pp. H-26)². A thriving local agricultural industry is essential to the long-term sustainability of the community. It preserves nonrenewable resource land, enhances regional self-reliance for food and jobs, maintains diversity of the local economy, reduces dependence on petroleum products, and increases the quality of life. Many local farms provide additional benefits to the larger community such as flood control, wildlife habitat protection, nutrient cycling, and scenic open space. Some farms also provide seasonal recreation opportunities, such as corn mazes, U-pick farms, pumpkin patches, hay rides, Christmas fairs, and petting zoos. As the county's population continues to grow, the need for conservation measures to protect agricultural resources intensifies because of increased development pressure on farmlands and greater local demand for agricultural products. This interconnection between urban and rural residents within the county and local farmers points to the need for community-wide awareness, appreciation, and support for farming.

C. FARMING DIVERSITY AND MARKETS:

Thurston County products range from nursery stock to hay, from strawberries to dairy products, representing the diversity of our local resources. According to the 2012 USDA Agricultural Census, Thurston County has 27.5 percent pastureland, 30 percent cropland, 17.5 percent other, and 24.8 percent woodland. Most of the top-ranked producer counties in Washington do not have the same agricultural diversity as Thurston County. This diversity is possible due to the unique soil and water resources that occur here and the variety of markets available for farm products. For example, sandy, well-drained soil types in areas throughout the county give rise to very successful seedling tree enterprises. These soils allow for the planting and harvesting of plants during wet weather, when other soils are impossible to work. This characteristic allows crops to be grown here that are difficult to grow on heavier soils. In addition, clean water from relatively shallow aquifers provides for the irrigation needs of a variety of different crops.

¹ USDA. (2012). Census of Agriculture: Thurston County Profile. *United States Department of Agriculture*.

² Thurston County. (March, 2017). Voluntary Stewardship Program: Appendix H – Thurston County Baseline Conditions & Existing Information. *Thurston County*, p. 26.

Thurston County has a diversity of types of farms. They include larger-scale commercial farms, organic farms, historic family farms, smaller-scale, close-to-market produce farms, orchard farms, and part-time farming operations. Community-Supported Agriculture (CSA) farms have become popular within the county, providing a direct relationship between the consumer and the farm on which an agricultural product is raised. Over 60 local farms sell their produce directly to consumers, through Farmers Markets, U-Pick, special orders, and roadside farm stands (SSCFLT, 2017)³. Fish farming operations have also located here, finding substantial quantities of clean water, an important factor in the successful rearing of fish (see Aquaculture section, below). Along

with chickens, cows, and sheep, Thurston County farmers raise alpacas, llamas, emus, and other diverse types of livestock. Several turf-growing companies have also located in Thurston County partly because of the county's proximity to a major marketing area and because of the availability of good farm ground. Proximity to markets has been a factor in sustaining the county's egg and poultry producers (Thurston County leads the state in egg production with an inventory of 1,402,243 "layers", or 20 percent of the states total, in the 2012 USDA Census of Agriculture).

Farmers in Thurston County are affected by changing conditions: markets, federal, state and local regulations, land costs, water rights issues, and land uses surrounding farming areas. Long-term

Agricultural Make Up of Thurston County

(USDA Ag Census, 2012)

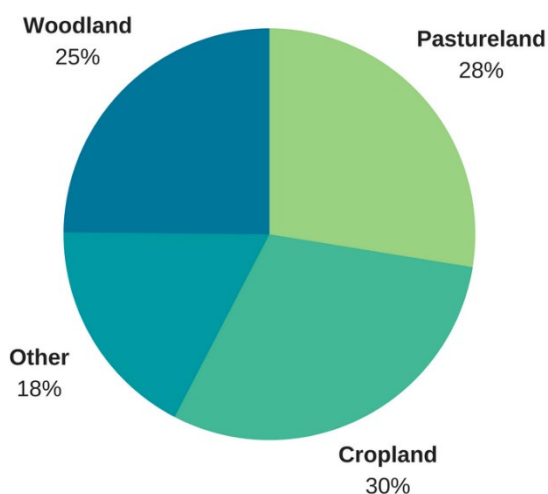


Figure 1. Agricultural Makeup of Thurston County (USDA, 2012)

trends show a loss in farmland (6,500 acres since 2000; 90,000 since 1950); an aging farm population with an average age of 59; development pressure (126,000 new residents by 2040) that leads to increase in land cost; and continued loss of large farms and contiguous farmland (WSU, 2017)⁴. Figure 3-2 illustrates the decline in average farm size since 1997. In the year 2012, there were fewer large farms than previous years. Since 2002, there has been an increase in the number of farms on less than 10 acres.

³ South Sound Community Farm Land Trust. (2017). South of the Sound Community Farm Land Trust 2017 Farm Map.

⁴ Bramwell, S., Moorehead, S., Meade, A., Sero, R., Gray, S., and Miles Nowlin. (2017). "South Puget Sound Agricultural Producer Needs Assessment". Washington State University.

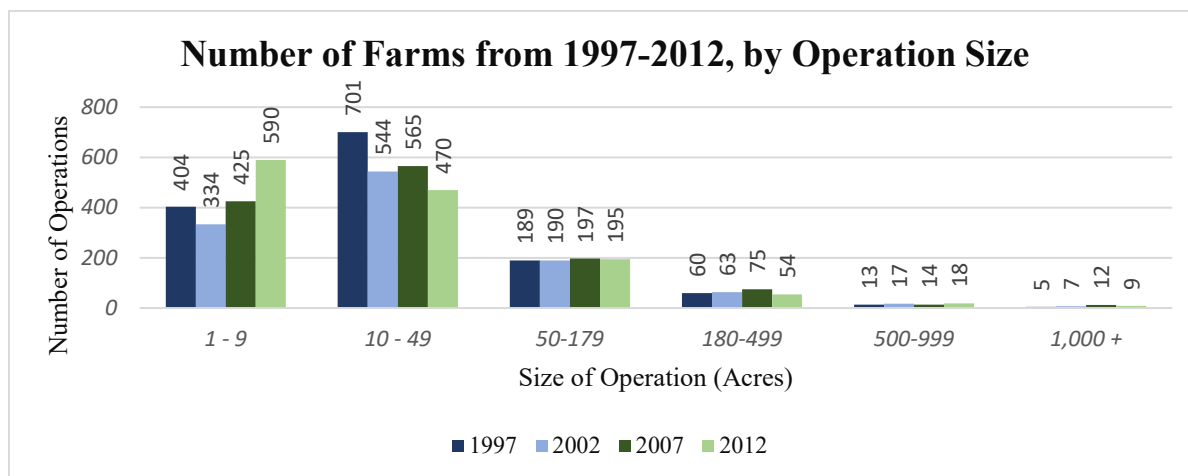


Figure 3-2. Number of Farms from 1997-2012, by operation size. (USDA NASS, 2012).

According to the *South Puget Sound Agricultural Producer Needs Assessment* (WSU, 2017), top identified need areas include regulations; capital, equipment, and infrastructure; access to productive resources including land and water; research, education, networking and information resources; and market access.

Farmers in Thurston County, regardless of farm size or commodity produced, share a common sense of stewardship and love of the land. Farmers and residents that benefit from fresh, local agricultural products want farming to continue in this county. Due to market and regulatory issues which are outside the control of local farmers, there is a need for a comprehensive approach to maintain the commercial viability of local agriculture. Farmers need to be flexible and capable of growing a diversity of crops to remain competitive, and there needs to be a program of community support for local agriculture. There is also a need for protection of an affordable land base, soil fertility, and ground and surface water quality and quantity, in order to maintain and enhance resource opportunities for existing and future generations.

D. EXISTING PROGRAMS TO SUPPORT AGRICULTURE

An overriding philosophy in this Plan is that in order to preserve agricultural land for future generations, the business of agricultural production must remain economically viable. Agricultural producers serve a vital role in the care and management of prime agriculture lands as well as make significant economic, cultural, and environmental contributions to the quality of life in Thurston County. This Plan places great emphasis on protecting the economic viability of agriculture businesses to encourage agricultural producers to continue to serve as stewards of the land and contributors to the quality of life in the future.

Food, feed, forage, fiber, and oil seed crops are all best produced on farmland soils that provide superior physical and chemical characteristics. Historically, valuable agricultural lands have been diverted and eliminated by urbanization in the form of low-density suburban sprawl located

outside cities and their urbanized environments. Thurston County has a number of programs that exist to support agricultural viability and minimize the conversion of farmland to other uses:

Open Space Tax Program

In 1970, the Washington State Legislature passed the Open Space Tax Act, recognizing the need to protect farmlands from high property taxes in an effort to stem conversion of farmland to urban and suburban land uses. Thurston County administers the Act through a local farm and agricultural tax classification that provides eligible farmers the ability to have their productive and idled farmland taxed at its current use, instead of its “highest and best use.” This significant property tax savings helps reduce pressures to convert farmland, and helps relieve speculative land values which drive up property tax assessments. While many farmers are currently enrolled in this program, some are not or do not know how to enroll. In 2017, approximately 8 percent of the County’s lands were enrolled in an Open Space program related to agriculture. Of the lands enrolled, 88 percent was enrolled as current use agriculture, and the remaining 12 percent was enrolled as open space-open space, which can include idled farmland. The policies and action recommendations provide for encouraging enrollment and publicizing the program.

Another threat to increased farmland tax values is taxes or assessments for sewer, water, public utility districts, local improvement districts, and utility local improvement districts. The policies discourage the inclusion of farmland in these districts.

Voluntary Stewardship Program (VSP)

The Voluntary Stewardship Program was created under the Growth Management Act ([Chapter 36.70A RCW](#)) in 2011 to give counties the option to use locally driven watershed-based plans and incentive-based tools to protect critical areas located on agricultural lands. Prior to 2011, the main tool for counties to ensure protection of critical areas on agricultural land was regulation. Regulation of agricultural landowners can threaten farm viability and lead to legal battles. The VSP provides an alternative approach to balance the protection of critical areas with agricultural viability.

It is this land ethic that drives the newly developed Voluntary Stewardship Program (VSP) in Thurston County. Instead of enacting further critical areas regulation on agricultural lands, the VSP allows the county and a technical assistance provider to work closely with stakeholders to develop voluntary, site-specific stewardship plans. The VSP is a watershed-wide, incentive-based approach to protect and voluntarily enhance critical areas while maintaining and improving the long-term viability of agriculture.

In addition to protecting critical areas, the VSP is a collaborative effort that is working to fill some of these needs and provide a comprehensive approach to maintain the long-term viability of local agriculture. In order to remain viable, agriculture requires adequate water and land with good soil to produce healthy crops of food, fiber, and fuel. The VSP is one of the methods that the County is using to promote the economic viability of local agriculture, reduce farmland conversion, and ensure food security. The VSP identified five essential elements of agricultural viability: 1) Land Resources, 2) Water Resources, 3) Regulatory Reform, 4) Infrastructure, and 5) Market.

Conservation Futures

Conservation Futures is a land preservation program authorized by RCW 84.34.200 that protects, preserves, maintains, improves, restores, and limits the future use of threatened areas of open space, timberlands, wetlands, habitat areas, culturally significant sites, and agricultural farmlands within Thurston County. Thurston County established a Conservation Futures program in 1989. Conservation Futures funds, acquired through a property tax levy, may be used for the following approaches to agricultural land conservation:

- **Purchase of Development Rights (PDR)**
 Thurston County established a Purchase of Development Rights Program (PDR) in 2011. This program authorizes Thurston County and other qualified conservation programs to purchase development rights with the intent to preserve farmland. Land owners are compensated with the agreement to conserve their land. Generally, property owners retain ownership and continue to reside on their lands under the PDR program. The PDR program is open to all lands that meet the definition of agricultural lands, as defined by the Open Space Tax Program (RCW 84.34.020).
- **Fee Simple Purchase**
 This program is the acquisition of land by a land trust or conservation agency. The land may be leased or sold to farmers who agree to use the land for agricultural purposes. Land trusts own the land in a fee simple purchase, and have the greatest control over how the land is managed.
- **Agricultural and Conservation Easements**
 Conservation easements are a voluntary legal agreement between a landowner and a land trust, where the use of the property is permanently limited in order to protect agricultural or conservation value. In the case of an agricultural conservation easement, continued agricultural use is required, but land owners may continue to occupy the land.

Transfer of Development Rights (TDR)

Thurston County’s Transfer of Development Rights Program (TDR) allows agricultural land owners to realize the value of their land without having to sell the property for development. The County’s Transfer of Development allows property owners of land in the Long-term Agriculture zoning district (Sending Area) to gain credit for unused development rights that can be sold and transferred to another property in an urban area (Receiving Area). This approach helps to preserve the rural character and agricultural economy of Thurston County.

Table 3-1. Acres of Land Enrolled in Agricultural Protection Programs

Program	Acres Enrolled
Open Space Tax Program	38,809

Voluntary Stewardship Program	N/A
Transfer of Development Rights	181
Purchase of Development Rights	942
Fee Simple Purchase	302
Agricultural & Conservation Easements	2,095

DATA RETRIEVED FROM: THURSTON COUNTY (MARCH 14, 2018), TRPC (2017)

As of 2017, approximately 38,809 acres of land were enrolled in Open Space as Current Use Agriculture or Farm and Agricultural Conservation Land, 181 acres enrolled in TDR, 942 acres in PDR, 302 acres of land under a fee simple purchase, and 2,095 acres of land under an agricultural/conservation easement.⁵

E. AGRICULTURAL LANDS OF LONG-TERM COMMERCIAL SIGNIFICANCE:

The Growth Management Act (RCW36.70A.170) requires counties to designate agricultural lands of long-term commercial significance. In 2006, the Washington State Supreme Court clarified the definition of “agricultural land” by stating:

[w]e hold that agricultural land is land: (a) not already characterized by urban growth (b) that is primarily devoted to the commercial production of agricultural products enumerated in RCW 36.70A.30(2), including land in areas used or capable of being used for production based on land characteristics, and (c) that has long-term commercial significance for agricultural production, as indicated by soil, growing capacity, productivity, and whether it is near population areas or vulnerable to more intense uses. We further hold that counties may consider the development-related factors enumerated in WAC 365-190-050(1) in determining which lands have long-term commercial significance. Lewis County v. Hearings Bd., 157 Wn2d 488 (2006) at page 502.

Criteria used to designate agricultural land of long-term commercial significance are based on: (1) the Washington State Supreme Court’s Definition of agricultural lands found in *Lewis County v. Hearings Bd., 157 Wn.2d 488 (2006)*; (2) the Washington State Department of Commerce (COM) guidelines for the classification and designation of resource lands; (3) existing Thurston County policies; and (4) an analysis of local conditions. These criteria include:

1. Soil Type:

The classification and identification of agricultural lands of long-term commercial significance is based upon the land capability classification system of the United States Department of Agriculture Handbook No. 210. Those classes of agricultural lands are based upon consideration of growing

⁵ TRPC (2017). “Farmland Zero Net Loss”. *Thurston Regional Planning Council*.

capacity, productivity, and soil composition. They have been incorporated into map units of the Department's soil surveys. The following list of prime farmland soils in Thurston County is based on the Soil Conservation Service's Soil Survey of Thurston County, Washington, 1990. Designated lands should include predominantly prime farmland soils. The enumerated list of prime farmland soil types below is not intended as exclusive criteria.

SCS Map Unit #	Soil Description
14	Bellingham silty clay loam (where drained)*
26	Chehalis silt loam
29	Dupont muck (where drained)*
31	Eld loam
36	Everson clay loam (where drained)*
37	Galvin silt loam, 0 to 5 percent slope
38	Giles silt loam, 0 to 3 percent slope
41	Godfrey silty clay loam (where drained)*
50	Kapowain silt loam, 0 to 3 percent slope
64	Maytown silt loam
69	Mukilteo muck (where drained)*
70	Mukilteo muck (drained)*
71	Newberg fine sandy loam
72	Newberg loam
73	Nisqually loamy fine sand 0-3 percent slope (where irrigated)
75	Norma fine sandy loam (where drained)*
76	Norma silt loam (where drained)*
86	Prather silty clay loam, 3 to 8 percent slope
88	Puget Silt loam (where drained)*
89	Puyallup silt loam
97	Salkum silty clay loam, 3 to 8 percent slope
100	Scamman silty clay loam, 0-5 percent slope (where drained)*
104	Semiahmoo muck (where drained)*
105	Shalcar muck (where drained)*
106	Shalcar Variant muck (where drained)*
107	Skipopa silt loam, 0-3 percent slope
115	Sultan silt loam
120	Tisch silt loam (where drained)*
126	Yelm fine sandy loam, 0 to 3 percent slope

** Large areas which are known to qualify as Class I wetlands, (wetlands with threatened or endangered species) and which are not already in agricultural use, should be excluded from designation.*

2. The Availability of Public Facilities and Services:

Since lands within Urban Growth Areas, as established within this Comprehensive Plan, are intended to be served by public facilities and services within a twenty-year period, agricultural lands of long-term commercial significance should be located outside of these boundaries.

3. Land Capability and Tax Status:

Designated agricultural lands should include only areas that are primarily devoted to the commercial production of agricultural products enumerated in RCW 36.70A.030(2), including land in areas used or capable of being used for production based on land characteristics. Aerial photograph interpretation can identify areas used for agriculture. Historic use information, current use information (including enrollment in the open space tax program) and soil types can help identify lands capable of being used for agriculture; however, these are not the only methods for determining land capability for agriculture.

4. Relationship or Proximity to Urban Growth Areas:

Since lands within Urban Growth Areas, as established within this Comprehensive Plan, are intended to be developed at urban densities over a twenty-year period, agricultural lands of long-term commercial significance should be located outside of those boundaries. Furthermore, designated agricultural lands should be separated from urban residential densities by a natural or man-made feature, (e.g., railroad, road, or river), in order to avoid potential land use conflicts.

5. Predominant Parcel Size:

For Thurston County, the predominant parcel size is 20 acres or more, which, in conjunction with soil type, provides economic conditions sufficient for managing agriculture lands for long-term commercial production.

6. Land Use Settlement Patterns and Their Compatibility with Agricultural Practices:

Except within urban growth areas, adjacent residential development should be minimal and at rural densities of one unit per five acres. Recent subdivision activity near or adjacent to designated agricultural lands is an indication of settlement patterns that may have an effect on the long-term viability of agriculture. The most compatible land uses within and adjacent to long-term agricultural lands include forestry, mining, parks and preserves, and open space.

7. Proximity of Markets:

Local or regional markets should be available. Designated agricultural lands should have access to road, rail, or air transportation routes to markets.

8. Agricultural Diversity:

A diversity of agricultural activities should exist, or the area should be sufficiently large to support diverse agricultural activities. No single designated agricultural area should be smaller than 320 acres, or 200 acres if near another designated area. This helps assure land use compatibility for long-term resource use, and a diversity of agriculture uses in one area. Boundaries should follow landmarks visible on the ground when possible, to provide visual distinction of land use areas.

9. Environmental Considerations:

Designated agricultural lands should be outside of Natural Shoreline Environments if they are not already being used for agriculture. The Shoreline Master Program regulations severely limit the ability to convert such areas to agricultural uses, and from one agricultural use to another.

The above criteria were applied to all agricultural lands of Thurston County and appropriate areas were designated as areas of long-term agricultural significance. These lands are shown on **Map N-1**. Lands of long-term agricultural significance are also identified as “Long Term Agriculture” or “Nisqually Agriculture” on future land use map, and shown on **Map L-1**. Future lands that meet these criteria may also be considered for designation at the request of the farmland owner.

Also included on **Map N-1** are two areas of designated agricultural lands located in the Nisqually Valley. These areas merit special consideration due to the unique values the Nisqually Valley holds. The following excerpt from the Nisqually Subarea Plan highlights those unique values:

"The Nisqually Planning Area serves as the eastern gateway to Thurston County. The 40 million yearly travelers along the I-5 Corridor will recognize it as one of the few undeveloped river valleys between Olympia and Everett. It is distinguished by the broad open areas of the Nisqually Wildlife Refuge north of I-5 and the rural farms south of the freeway. This picturesque rural setting is framed with a wooded hillside extending the length of the western McAllister Bluff which loops back into the valley. ...It is this combination of farm and forest, hillside and valley, or clusters of development and adjacent open areas which gives this planning area its distinctive character."

Farmland within the McAllister Springs aquifer recharge area was not found to meet long-term designation criteria due to the proximity of urban land uses to the north and the sensitivity of the aquifer to pesticide and fertilizer use, which may limit the viability of some types of farming operations. Low density zoning is maintained in this area, as are special provisions to protect water quality from the adverse impacts of a variety of land uses.

Table 3-2. Acreages of Long Term Agriculture designation within Thurston County

Land Use Designation	Acreage
Nisqually Agriculture	984 acres
Long Term Agriculture	14,894 acres

DATA RETRIEVED FROM THURSTON COUNTY PARCEL DATA, MARCH 14, 2018

Currently, there are 15,878 acres of designated agricultural lands: 984 acres are designated Nisqually Agriculture, and 14,894 acres are designated Long Term Agriculture (Table 3-2).

Redesignation of Agricultural Areas: While the emphasis of this Plan is to prevent the loss of agricultural lands, the County is subject to trends and events that it has little ability to control. The

process and procedures used to identify and designate agricultural land are based on the best available information, and not site-specific conditions. While the areas designated for long-term agricultural use meet the primarily physical criteria for long-term commercial use, other factors, and site specific conditions may arise that can render commercial agriculture activity completely non-viable. If farming economics changes so as to affect the long-term potential for farming in a substantial portion of an agriculture district, the land use designation should be reconsidered. In addition, if site-specific evidence conclusively indicates that land does not meet the criteria for designation as agricultural land, the land use designation should be reconsidered.

Piecemeal redesignation of lands within the designated agricultural areas should not be allowed. The farm areas designated as agricultural lands of long-term commercial significance were chosen because there was a critical mass of operating farms with significant investments in land, buildings, and other improvements, productive farm soils, and absence of incompatible land uses. The piecemeal redesignation of individual properties from agricultural use to residential use can have a domino effect. Conflicts between new residents and surrounding farmers make it harder for the farms to continue. These conflicts also add pressure to those surrounding farmers to seek redesignation of their land. Therefore, the reevaluation of agricultural land should occur only for whole areas of land designated as agricultural land of long-term commercial significance.

Redesignation of the agriculture areas to other land use designations should be taken up only when changes in economic conditions, surrounding land use or regulatory conditions are negatively affecting farms throughout the district, over a period of several years, or site-specific scientific evidence conclusively indicates the land does not meet the criteria for designation as agricultural land. The losses of an individual farm should not be reason, by itself, for eliminating or endangering the remaining acres of Thurston County's best resources of agricultural land in the future.

The following criteria are provided to capture, in a general way, the limited nature of the circumstances under which the County should reevaluate a whole area designated as agricultural land of long-term commercial significance.

- A. Changes in surrounding land use severely inhibit or severely interfere with continued agriculture use;
- B. Changes in market conditions severely reduce the economic viability of agriculture use; or
- C. Changes in regulatory requirements severely reduce the economic viability of agriculture use; or
- D. Site specific scientific evidence conclusively indicates the land does not meet the criteria for designation as agricultural land.

These circumstances should create severe losses lasting several years, covering a wide range of crops or products, and affect a majority of the producers in the area, before a reevaluation of agricultural lands is undertaken. One issue of concern is the ability of farmers to secure and maintain water rights for changing agricultural operations. More attention to this issue is needed at the state and local level.

IV. AQUACULTURE RESOURCES

A. COMMUNITY VISION:

The residents of Thurston County recognize that aquaculture is of statewide and national interest. Properly managed, aquaculture can result in long-term over short-term economic and environmental benefit. Aquaculture, like other natural resource industries, is an important component of the county's rural character and economy. The residents of Thurston County envision a thriving and robust aquaculture industry and take responsibility for ensuring that its potential can be fully realized. They also strive to initiate and maintain a constructive and progressive partnership with the aquaculture industry.

The aquaculture industry, comprised of responsible users of Thurston County's marine and fresh water resources, promote wise stewardship of tidelands and other areas associated with their aquaculture activity. The aquaculture industry supports regulations that are operationally-feasible, scientifically sound, and fairly enforced. They are committed to environmental protection through full implementation of environmental codes of practice.

B. BACKGROUND:

A thriving shellfish industry is located along the county's Puget Sound shorelines. The warm, nutrient rich tide flats of southern Puget Sound is an exceptionally valued shellfish growing area. Shellfish growers have taken advantage of this, producing more oysters than anywhere else in Puget Sound. In addition to oysters, Thurston County is also home to clam (including geoduck), mussel, and scallop farming and fish hatcheries. Geoduck production began to increase in 2000 and has maintained a mostly upward trajectory, surpassing production of the Pacific oyster⁶. Thurston County is also home to sand lance spawning, smelt spawning, and herring spawning and holding areas⁷. With an average value of sales at \$18,326,000, Thurston County is ranked 4th in the state and 17th nationally for aquaculture production (USDA, 2012). Aquaculture within Thurston County accounts for 17 percent of "livestock" sales for the County⁸. Washington State is a national leader in shellfish production.

⁶ Washington Sea Grant. (December, 2015). Shellfish Aquaculture in Washington State. *University of Washington*.

⁷ WDFW. (2016). Forage Fish GIS data.

⁸ WSU. (2014). "Agriculture: A Cornerstone of Thurston County's Economy". *Washington State University*.

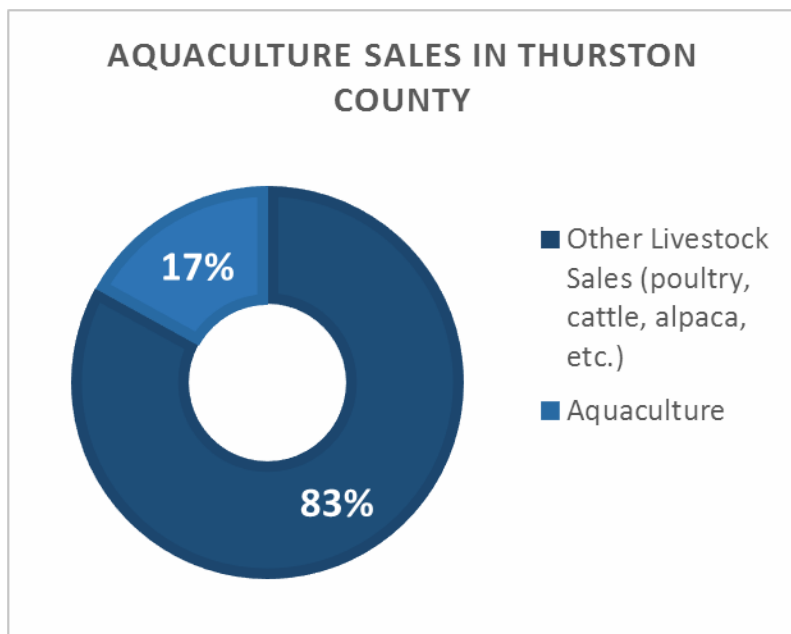


Figure 3-3. Livestock Sales in Thurston County (USDA, 2012)

In addition to marine based aquaculture operations, several tribal, public, and privately owned land based fish farms reside in Thurston County, including salmon and trout hatcheries. In 2017, there were 3 WDFW salmon hatcheries in Thurston County that hatch Coho, Chinook, and Steelhead. These operations rely on the plentiful and clean water from shallow aquifers to raise fish, many pumping millions of gallons a day. Unlike surface waters that have fluctuating temperatures dependent on the season, groundwater remains a constant 50 degrees, allowing for the consistent and sustained growth of the fish.

There are also several natural populations of Chinook and Steelhead within Thurston County, including 3 federally threatened populations. Wild salmon runs have continued to decline due to human influences (loss & fragmentation of habitat, pollution, dams, overfishing) and changes to the natural environment (fluctuating marine conditions, increase in predators, climate change)⁹.

Protection of commercial and recreational shellfish resources: There are over 40 commercial shellfish operations and associated industries in Thurston County. Shellfish is also harvested recreationally in public parks and on private beaches, and by the Tribes for their resource needs. Shellfish harvesting is an important aspect to quality of life in the County. Protection of this commercial and cultural resource is a growing concern in Thurston County. As our population continues to grow and the downstream impacts of development continue, additional pressure is put on the shellfish industry as those impacts threaten some shellfish growing areas.

⁹ RCO. (2010). Salmon Recovery in Washington. Retrieved from: https://www.rco.wa.gov/salmon_recovery/

Shellfish do not need clean water to grow, but they must have clean water to be safely eaten. Because shellfish are filter feeders, they filter all particles out of the water, including bacteria, chemical, biotoxins, and viruses. Accumulated contaminants can make people sick.¹⁰ The Washington State Department of Health (DOH) monitors water quality for shellfish harvesting. Thurston County references DOH's Annual Inventory of Commercial and Recreational Shellfish Areas to determine what lands are designated as harvestable for shellfish.

Protection of water quality, both groundwater and surface water, is particularly important for commercial and recreational shellfish harvesting. Downgrades in water quality affect commercial growers and public health, and the County continues to experience downgrades of shellfish growing areas. The County forms a shellfish protection district when there is a downgrade, and works to restore the resource to a harvestable level.

The County is concerned with protecting existing and future aquaculture operations from incompatible development. Aquaculture operations may conflict with other adjacent uses, such as public access, recreation, shoreline residential development, and natural protected areas. County policies discourage encroachment from incompatible uses to avoid nuisance conflicts and water quality degradation. The policies also provide that normal aquaculture practices should not be considered a nuisance unless they threaten the public health and safety. Clearly there is a need for balance on this issue, since aquaculture operations operate in areas where the environment is particularly fragile, and where other kinds of activities occur. Because of this, the policies recommend that adverse impacts from aquaculture operations be minimized. Development of guidelines to help guide aquaculture operations in avoiding potential conflicts is also proposed. Aquaculture operations within Thurston County are eligible to participate in the Voluntary Stewardship Program (see section III on Agriculture).

Tribes and shellfish: Tribes are a co-manager of shellfish resources. The Squaxin Island and Nisqually tribes are important stewards of all shellfish that occur in their usual and accustomed harvest areas in the waters of Thurston County, and have rights to harvest 50 percent of the resource for their own use. The rights and responsibilities of tribes are an important consideration when planning for the protection and development of the shellfish resource, and when regulating land uses upstream from shellfish areas.

Upland fish farms: In addition to shellfish growing areas, Thurston County is also home to a handful of fin fish farms on upland sites. Land-based fish rearing facilities, seaweed and net pen rearing facilities also require good water quality to operate. Supporting this unique aquacultural activity, while minimizing potential water pollution and land use conflicts, is an important goal of the Comprehensive Plan.

V. FOREST RESOURCES

¹⁰ Thurston County. (February, 2001). Shellfish Facts. *Thurston County Environmental Health*.

A. COMMUNITY VISION:

The citizens of Thurston County recognize the multiple public benefits of public and private forest land, including economic benefits, wildlife habitat, scenic resources, and recreational opportunities. Supporting economically viable forest land slows the conversion of rural areas to other non-resource uses and supports a rural economy of both large and small forestry operations. The community wishes to avoid discouraging forestry by avoiding regulations that place an undue burden on forest landowners, while recognizing the responsibility of forest landowners to be good stewards of the County's forests and other environmental resources.

B. BACKGROUND:

Forest lands are a paramount economic resource for Thurston County and the State of Washington. This valuable resource must be conserved and protected to ensure timber and forest production into the future. It is the State's policy to encourage forestry and restocking of forests (RCW 84.33.010). Good forestry management and environmental stewardship has many benefits, including:

- ❖ Improved water quality;
- ❖ Improved air quality;
- ❖ Carbon sequestration;
- ❖ Reduced soil erosion;
- ❖ Less storm and flood damage;
- ❖ Protection of wildlife habitat;
- ❖ Biodiversity;
- ❖ Scenic and recreational open spaces.

Forestry production activities have had a long history in Thurston County evolving from the timber "mining" days of the late 19th and early 20th centuries to the sustained yield forestry management that occurs today. Currently, approximately 60 percent of Thurston County is covered by forest, and over 30 percent of the County is managed for forestry by private or public operators. Additional forest land is maintained on Fort Lewis. DNR-managed trust lands in the county, such as Capitol Forest, are managed to conserve forest resource lands. DNR-managed lands also provide extensive recreation opportunities that help to generate revenue for local county services, public schools, and universities. Recreation opportunities (**Chapter 9**) exist both in state and privately owned timber lands in the County. Forest lands offer a variety of recreational experiences, including:

- ❖ Boating
- ❖ Camping
- ❖ Fishing
- ❖ Hiking
- ❖ Horseback riding
- ❖ Hunting
- ❖ Mountain Biking
- ❖ Target Shooting

- ❖ Off-road Vehicles
- ❖ Winter Activities
- ❖ Rock Climbing
- ❖ Geocaching

A variety of other economic products are harvested from forests in Thurston County additional to timber, including hard woods, salal, ferns, moss for the floral industry, and mushrooms for a growing local and export food market.

C. FOREST LANDS IN THURSTON COUNTY:

Most of the forest land within Thurston County is considered forest lands of long term commercial significance (see Section D below). Long Term Forestry (see Table 3-3) is the single largest land use designation in the County and makes up approximately 29 percent of county lands. Forestry also occurs in the Rural Residential Resource 1/5 designation within the County. More than 50,000 acres of forest and timber land enrolled in the Open Space Tax Program are not designated as Long Term Forestry¹¹.

Table 3-3. Acreage of Forestland in Thurston County

<i>Zone</i>	<i>Acres of Land</i>	<i>Percentage of Land Base</i>
Long term Forestry (LTF)	144,024 acres	29 %
Designated Forest Land (outside LTF)	50,302 acres	10 %
Timberland (outside LTF)	2,458 acres	0.5 %
<i>Total</i>	<i>196,784 acres</i>	<i>40 %</i>

DATA RETRIEVED FROM THURSTON COUNTY PARCEL DATA, MARCH 14, 2018

Minimizing Conflicts Between Forestry and Other Land Uses: An overarching concern of forest landowners in the County, especially rural foresters, is encroachment and the potential impact that adjacent land uses may have on forestry operations. The policies provide that normal forestry practices should not be considered a nuisance unless they threaten the public health and safety. This is consistent with RCW 7.48.305, which states that forest practices undertaken in conformity with all applicable laws and established prior to surrounding non-forestry uses, are presumed to not constitute a nuisance unless the activity has a substantial adverse effect on the public health and safety. Forest operations must remain economically viable to withstand encroachment of rural development. However, the policies also recognize that forestry operations need to minimize the

¹¹ Data retrieved from Thurston County Assessor as of February, 2017.

potential adverse impacts on other uses and the environment. Thus, the policies try to strike a balance between forestry management and other activities and environmental concerns.

D. DESIGNATING FOREST LANDS OF LONG-TERM COMMERCIAL SIGNIFICANCE:

The Growth Management Act requires cities and counties to classify and conserve forest lands of long-term commercial significance. The Act defines "long-term commercial significance" as determined by the growing capacity, productivity, and soil composition of the land for long-term commercial production, in consideration of the land's proximity to population areas, and the possibility of more intense uses of the land. The Washington State Department of Commerce recommends that classification of forest lands be based on the private forest land grades of the Department of Revenue (WAC 458-40-530; see Table 3-4), among other criteria. Thurston County employed this land grade system, in addition to physical, biological, economic, and land use factors, to help determine which areas should be designated as forest lands of long term commercial significance.

Table 3-4. Washington State Private Forest Land Grades

<u>Species</u>	<u>Site Index (Growth Potential)</u>	<u>Land Grade¹²</u>
Douglas Fir	136 ft. and over	1
	118 - 135 ft.	2
	99 - 117 ft.	3
	84 - 98 ft.	4
	under 84 ft.	5
Western Hemlock	136 ft. and over	1
	116 - 136 ft.	2
	98 - 115 ft.	3
	83 - 97 ft.	4
	68 - 82 ft.	5
	under 68 ft.	6
Red Alder	117 ft. and over	6
	under 117 ft.	7

The predominant species growing in Thurston County is Douglas Fir. There is no occurrence of land grade 1, and very little of land grade 4. Most of the county is evenly split between land grade 2 and land grade 3. For designating forest lands of long-term commercial significance, Thurston County initially identified those areas where forest land grade 2 predominates.

¹² Land Grade 1 = highest, Land Grade 7 = lowest.

In addition to physical growing conditions, however, the state also requires that the county consider the effects of proximity to population areas and the possibility of more intense uses of the land, as indicated by:

1. The availability of public services and facilities conducive to the conversion of forest land.

In Thurston County, this is defined as the areas where the extension of public services and facilities is not planned for at least 20 years. Since lands within the Urban Growth Area boundaries, as established within this Comprehensive Plan, are intended to be served by public facilities and services within a 20-year period, forest lands of long-term commercial significance should be located outside of these boundaries.

2. The proximity of forest land to urban and suburban areas and rural settlements: forest lands of long-term commercial significance are located outside the urban and suburban areas and rural settlements.

In addition to being outside Urban Growth Areas, long-term forest lands should be far enough from urban areas that land use conflicts are avoided.

3. The size of the parcels: forest lands consisted of predominantly large parcels. For Thurston County, this means parcel sizes of predominantly 640 acres or larger.
4. The compatibility and intensity of adjacent and nearby land use and settlement patterns with forest lands of long-term commercial significance.

For Thurston County, this means that residential development should be minimal within the surrounding area and generally at a rural density of one unit per five acres to limit land use conflicts with forestry operations, such as trespassing, vandalism, shooting, and dumping. Other compatible land uses within and adjacent to commercial forestry include agriculture, mining, parks, preserves, and other open space. Each area designated as forest land of long-term commercial significance should total approximately 5,000 acres or more.

5. Property tax classification: property is assessed as open space or forest land pursuant to Chapter 84.33 or 84.34 RCW.

Thurston County considered properties enrolled in the Classified or Designated Timber programs, as well as public land managed for timber production.

6. Local economic conditions which affect the ability to manage timber lands for long-term commercial production.

Economic conditions should be conducive to long-term timber management. In Thurston County, unfavorable economic conditions include locations with high administrative costs due to complaints from nearby landowners, locations requiring extensive security control efforts, and locations in which allowable forest practices such as burning and chemical

applications will significantly interfere with other permitted land uses. Favorable economic conditions include land grade 2 forest soils, which provide (in conjunction with large parcel sizes) the growth potential to manage timber lands for long-term commercial production.

7. History of land development permits issued nearby.

For Thurston County, this means that recent residential development is an indicator of a pattern or direction of growth that may be encroaching on the forest land.

The above criteria were applied throughout unincorporated county areas to designate forest lands of long-term commercial significance. Designated long-term commercially significant forest Lands (as of August 23, 1993) are shown on **Map N-1**. Currently designated forest lands of long-term commercial significance are identified as “Long Term Forestry” on the Future Land Use Map, **Map L-1**. Future lands meeting these criteria may also be designated.

IV. MINERAL RESOURCES

A. COMMUNITY VISION:

The citizens of Thurston County recognize mining as an important part of the local and regional economy. Mineral resources such as sand and gravel supply materials for road maintenance and construction projects throughout the region. The community seeks a balance between the need for mineral resources and the need to protect the environment and the community from any adverse impacts of mining through best management practices, reclamation, and restoration. Good stewardship of mining operations takes a partnership among mining operators, county citizens, and regulatory agencies.

The Growth Management Act defines "minerals" as gravel, sand, and valuable metallic substances (RCW 36.70A.030(12)). Other minerals may be designated as appropriate.

B. BACKGROUND:

Thurston County is fortunate to possess ample deposits of valuable mineral resources, consisting primarily of sand, gravel and bedrock, but also including some coal and metal ore deposits. The deposits are perhaps doubly significant considering their proximity to major population areas and construction projects that use sand and gravel.

Although rich in sand and gravel, the County has relatively few areas of high quality basalts used in construction activities. Shot rock is important for highway construction and flood control rip rap. The sandstone quarries at Tenino have provided valuable building material for the State Capitol and other structures around the County. There are no known valuable metallic minerals within the County. These resources occur throughout the county with the largest concentrations found in the west and south. A major portion of the county’s mineral resources coincides with designated forest

resource lands. The quantity of commercially significant sand and gravel has been estimated at 6.1 billion tons (3.8 billion cubic yards), and bedrock resources are estimated to be unknown. This is much more than sufficient to meet long-term demand for the foreseeable future.¹³

Thurston County's planning efforts for mineral lands are guided by GMA statute and rules, which set forth three primary steps:

1. *Identify* all mineral resources (primarily sand, gravel and bedrock) and *classify* these resources based on estimates of quantity and quality, and commercial value;
2. *Designate* mineral resource lands which have long-term commercial significance, and which are not already characterized by urban growth. Designation must also consider relevant geologic, economic, land use and environmental criteria identified in the GMA rules; and
3. *Conserve* designated mineral resource lands through policies and development regulations to ensure that extraction is feasible and is not inadvertently precluded by development, or because surrounding land uses will conflict with and interfere with future extraction.

C. BALANCING CONFLICTS:

The mineral extraction process does pose potential conflicts with surrounding uses, particularly rural residential uses and critical areas. When the County designates mineral lands of long-term commercial significance, the location and value of the resource as well as its proximity to existing residential areas are evaluated. During the permit process for new mining activity, the County considers:

- ❖ Groundwater protection;
- ❖ Air and water quality;
- ❖ Travel impacts;
- ❖ Surrounding residential densities;
- ❖ Habitat impacts;
- ❖ Other concerns.

In response to these concerns, the county implements conditions and BMPs through the Special Use Permit process and Mineral Extraction Code. This ensures that mining operations are in keeping with public health and safety and environmental protection. Just as sand and gravel is a natural resource, so too is the groundwater and air quality the county depends on. The Special Use Permit

¹³ AESI, *Mineral Resource Lands of Long-Term Commercial Significance Inventory Study*, August 2017. In 2016, Thurston County contracted with Associated Earth Sciences, Inc. (AESI) to identify and classify mineral resources in the County and create a base inventory map showing the location of mineral resources. AESI developed a draft inventory and classification system largely based on data from DNR and USGS, with some supplementary information from Washington Department of Transportation and private studies. This inventory identified 189,475 acres of land containing long-term commercially significant mineral resources, which were eligible to be considered for designation.

process also ensures that mineral extraction is generally located away from incompatible land uses. Noise, traffic and road impacts are also considered during the Special Use Permit Process. The movement of large amounts of mineral resource necessitates good roads capable of handling significant numbers of heavily-loaded trucks. Loaded trucks en route from the extraction site may lose a very small but potentially hazardous portion of their load, and track dirt or mud onto public roadways.

Existing, non-operating or abandoned mining sites pose a concern to many county residents. These sites may leave aquifers vulnerably exposed and invite illegal waste dumping. The reclamation process is an important process managed by DNR, and is required for all active and future mining operations. Several old and abandoned pits exist in the county from before mining was permitted and reclamation was required. The reclamation program helps to ensure that all lands and waters within the state are protected after mining is complete.

The policies for mineral resource lands of long-term commercial significance aim to ensure the long-term viability of the mining industry while protecting public health and the environment. The policies call for:

- ❖ Mining to minimize adverse impact on the environment.
- ❖ Mining to minimize effect on surface and groundwater, and air quality.
- ❖ Mineral extraction sites to be restored as mining occurs.
- ❖ Non-operating or abandoned sites to be addressed.
- ❖ Mineral extraction to be located in rural, low density areas.

D. DESIGNATING MINERAL RESOURCES OF LONG-TERM COMMERCIAL SIGNIFICANCE

Within Thurston County, minerals of potentially long-term commercial significance include sand and gravel deposits, coal deposits, and a few rock resources, such as columnar basalt (shot rock) and sandstone.

GMA GUIDANCE FOR DESIGNATION OF MINERAL RESOURCE LANDS

Counties must designate mineral resource lands in order to achieve the natural resource industries goal of the Growth Management Act. State guidelines include that counties:

- Must approach designation as a countywide process, and not review mineral lands solely on a parcel-by-parcel basis;
- May consider a longer planning period than the typical 20 years, to assure the availability of minerals for future uses and not preclude their access due to incompatible development;
- Should base their classification of mineral lands on underlying geology and distance to market, and should use information from the Department of Natural Resources (DNR), the United States Geological Service, and relevant information from property owners;
- Should determine if adequate mineral resources are available for projected needs from designated mineral lands;
- Must consider mining a temporary use at any given location, that could be followed by another land use after mining is;
- Should designate mineral lands as close as possible to their likely end use area;

In classifying mineral resource lands, counties should consider the following minimum guidelines:

- Geology: depth and quality of resource and characteristics of resource site
 - Projected life of the resource
 - Resource availability and needs in the region
 - Accessibility and proximity to point of use or market
 - Energy costs of transporting materials
 - Proximity to population areas
 - General land use patterns
 - Availability of utilities, including water supply
 - Surrounding parcel sizes and uses
 - Availability of public roads and public services
 - Subdivision and zoning of small lots
- WAC 365-190-040; 070

To determine the location of mineral resource lands of long-term commercial significance, the County applies state criteria provided by the Washington State Department of Commerce and addresses the minimum guidelines set in WAC 365-190-070 (see sidebar). Based on those guidelines and additional considerations to protect public health, safety, and the environment, the County has developed the following criteria to designate mineral resource lands of long-term commercial significance.

OPTION A

OPTION A(1)

MINIMUM DESIGNATION CRITERIA

1. Mineral Deposits. Designated mineral resource lands should contain deposits consisting of sand and gravel, coal, sandstone, basalt, or other igneous rock, based on U.S. Geological Survey maps or site-specific information prepared by a geologist, or as indicated by State Department of Natural Resources (DNR) mining permit data.¹⁴
2. Location. Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves, but excluding hunting areas. In addition, designated mineral resource lands shall be at least 1,000 feet from urban growth areas and rural residential areas with existing densities predominantly one dwelling unit per five acres or higher, in order to minimize land use conflicts during the long-term operation of the mine.

To qualify for a mineral resource designation, at least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger, excluding parcels owned by the applicant.

3. Minimum Site Size. An area proposed for the mineral resource lands designation should be at least 5 acres in size.
4. Marketability. Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist.
5. Mineral resource lands shall not include agriculture lands of long term commercial significance, or historical/cultural preservation sites.
6. Mineral resource lands may include lands designated for long-term forestry.

OPTION A(2)

¹⁴ The 2017 Inventory of Mineral Resource Lands completed by Associated Earth Sciences and Thurston County may be used as the basis for satisfying this criteria.

MINIMUM DESIGNATION CRITERIA

1. **Mineral Deposits.** Designated mineral resource lands should contain deposits consisting of sand and gravel, coal, sandstone, basalt, or other igneous rock, based on U.S. Geological Survey maps or site-specific information prepared by a geologist, or as indicated by State Department of Natural Resources (DNR) mining permit data.¹⁴
2. **Location.** Designated mineral resource lands shall be separated by a distance of at least 1,000 feet from public preserves, which include parks, national wildlife refuges, state conservation areas, wild life areas, and other government owned preserves, but excluding hunting areas. In addition, designated mineral resource lands shall be at least 1,000 feet from urban growth areas and rural residential areas with existing densities predominantly one dwelling unit per five acres or higher, in order to minimize land use conflicts during the long-term operation of the mine.

To qualify for a mineral resource designation, at least 60% of the area within 1,000 feet of a proposed site must be made up of parcels 5 acres in size or larger, excluding parcels owned by the applicant.
3. **Minimum Site Size.** An area proposed for the mineral resource lands designation should be at least 5 acres in size.
4. **Marketability.** Mineral resource lands shall contain non-strategic minerals which are minable, recoverable and marketable in the present or foreseeable future as determined by a licensed professional geologist.
5. Mineral resource lands shall not include ~~agriculture lands of long term commercial significance, or~~ historical/cultural preservation sites.
6. Mineral resource lands may include lands designated for long-term forestry.

Designation means that the presence of mineral resources and analysis of land use compatibility has been completed at a broad, landscape scale, and designated sites are eligible to apply for the permits needed for extraction and/or processing of minerals. Designation does not mean that any specific site within the designation will be approved for an active mine. Such designation should not be used as a basis for granting a special use permit. Every proposal for mineral extraction must complete additional environmental review at the project level and obtain the required permits.

Becoming Designated: In order to receive a permit for mineral extraction, the land must first be designated mineral resource lands. If land is not currently designated as a mineral resource land of long-term commercial significance (**Map N-2**), it may be eligible for designation with the appropriate information. This process is completed through a comprehensive plan amendment with the required geologic information. See the Goals, Objectives, and Policies section for specific requirements.

Removal from Designation: A property owner may file an application for the removal of designation. This process is completed through a comprehensive plan amendment with the

required geologic information. See the Goals, Objectives, and Policies section for specific requirements

Beyond Designation: Protecting mineral deposits of long-term commercial significance for mining use is an important goal of the designation process, permitting process, and comprehensive plan policies. Policies aim to prevent residential and other incompatible uses from locating adjacent to these deposits. Several factors are addressed outside of the designation process. For example, the County recognizes that a mining operator's hauling distance to the resource user is an important factor to its economic viability. However, the policies also provide that mining activity should not encroach on existing residential uses nor adversely affect the environment.

Designated mineral lands may include environmentally sensitive areas. The presence of critical areas on the site may prohibit or restrict mineral extraction operations, as addressed at the site-specific permit level. Mine operators must go through all required review and permitting prior to beginning any mining activity on designated land. **Map N-2** identifies mineral resource lands that meet the designation criteria, although this map is provided for reference only. An updated map of designated mineral resource lands of long-term commercial significance is the "Official Designated Mineral Resource Lands" map accompanying the official zoning map, available at the County.

Long-term commercially significant (designated) mineral deposits should be conserved for long-term resource extraction. To this end, the following measures shall be implemented:

1. A Resource use notice shall be provided to new developments within a specified distance of designated mineral lands.
2. Existing mining operations outside designated mineral lands shall inform prospective property owners of the long-term resource nearby.

These measures are intended to assure that the use of lands adjacent to designated mineral lands shall not interfere with the continued use, in accordance with best management practices (BMPs), of the designated lands for mineral extraction.

VII. GOALS, OBJECTIVES AND POLICIES

AGRICULTURAL RESOURCES – GOALS, OBJECTIVES AND POLICIES

GOAL 1: PRESERVE AGRICULTURAL LAND IN ORDER TO ENSURE AN ADEQUATE LAND BASE FOR LONG-TERM FARM USE. (THIS APPLIES TO ALL AGRICULTURAL LAND, INCLUDING AREAS OUTSIDE OF AGRICULTURE OF LONG TERM COMMERCIAL SIGNIFICANCE)

OBJECTIVE A: Conserve (no net loss) and enhance agricultural lands for long-term farming use.

POLICIES:

1. Residential uses adjacent to farms should be developed in a manner which minimizes potential conflicts and reduces unnecessary conversion of farmland. The use of “cluster” development patterns should not result in increased density adjacent to existing farms, and should ensure that resource use parcels intended for agricultural use can be reasonably farmed.
2. Commercial farmland owners should be encouraged to retain their lands in commercial farm production and enroll their land in the Open Space- Farm and Agriculture Tax Program.
3. Farmland owners no longer meeting commercial requirements for current use agriculture should be encouraged to enroll their land in the Open Space Tax Program as Farm and Agricultural Conservation Land.
4. In order to reduce development pressure from the farm and rural areas, future development should be directed toward designated growth areas where existing and planned services can more easily accommodate growth. Outside these growth areas, densities should remain low.
5. Agricultural lands within the Nisqually Valley should be given a high priority for protection by means customized to the Valley's unique characteristics. Agricultural lands within the Nisqually Sub-Area should be protected from the encroachment of existing and potential residences within the valley and along the adjacent wooded hillsides.
6. The County should continue to develop innovative strategies for the conservation of farmland. Strategies such as rural cluster subdivisions, Purchase of Development Rights (PDR), Transfer of Development Rights (TDR), conservation easements, and the Voluntary Stewardship Program should continue to be implemented throughout the county.
7. The County should work with conservation groups and farmland owners to encourage participation in voluntary PDR and TDR Programs for the conservation of agricultural and working lands.
8. Purchase of Development Rights (PDR) and Transfer of Development Rights (TDR) Programs should be utilized as incentives for farmers to stay in agriculture on agricultural lands within the County to ensure that agricultural and working lands stay available for such uses.

ACTION NEEDS FOR OBJECTIVE A:

1. *Consider and develop strategies aimed at recognizing the importance of farming in rural areas, including farms located outside designated agricultural lands, should also be considered. This may include placing signs along roads warning drivers about farm*

equipment on roadways in farming areas, placing signs naming farms and identifying types of crops grown in them, or identifying VSP Good Steward properties.

2. *Monitor and report on the acreage of agricultural lands to determine if no net loss of the land base is being met.*
3. *Monitor and report on enhancements of agricultural lands to determine if agricultural lands are being enhanced.*
4. *Monitor and report on acreage of farmland enrolled in protection programs, such as open space, designated long term agriculture, TDR, PDR, and VSP.*
5. *Maintain a register of farmland owners interested in participating in development rights programs.*
6. *Coordinate and collaborate with conservation groups, farmers, and others to explore and develop alternative funding sources and obtain matching funds for a Purchase of Development Rights (PDR) program. Explore other low or no-cost alternatives to conserving farmland.*
7. *Study the impacts of cluster development on agricultural lands to ensure that clustering is achieving the intended benefits of minimizing impacts to resource industries and enhancing rural character.*

OBJECTIVE B: Encourage and educate farmers to fully utilize the county's agricultural resources.

POLICIES:

1. The county should encourage the schools and the media to provide more information on the special problems, potential, and importance of local agriculture to all citizens.
2. The county should work with community groups to support the continued viability of agriculture and encourage community support for it.
3. The county should encourage farmer participation in the Voluntary Stewardship Program to promote the long-term viability of agricultural activities in participating watersheds.

ACTION NEEDS FOR OBJECTIVE B:

1. *Encourage community efforts to support local agriculture, including continued support for the Agricultural Advisory Committee, Thurston County Fair, farmers markets, WSU-Cooperative Extension and the Thurston Conservation District. Establish a plan to monitor and collect data (e.g., CSA farms/sales, number of farmers markets) evaluating the availability and use of the above agricultural resources.*

2. *Direct agricultural outreach to existing technical assistance providers, such as WSDA, USDA, WSU-Cooperative Extension, and the Thurston Conservation District. Measure and report on the number of outreach and assistance provided to farmers.*
3. *Work with WSDA, USDA, WSU-Cooperative Extension, and other agencies to address the growing generational gap in the agricultural industry within the County. This could include greater outreach to young children regarding agriculture, link agriculture to social media, strengthen higher education in agriculture, incorporating agriculture and community farms into school curricula, and improving public investment in agriculture.*
4. *Work with the Visitor Convention Bureau and other groups to incorporate farms, u-picks, CSAs and other agribusinesses into tourism plans.*

OBJECTIVE C: Provide regulations that are supportive to long-term agricultural use.

POLICIES:

1. Farmers often need to work with a variety of federal, state, and local government regulations and agencies. Thurston County staff should be trained to assist farmers in working their way through this often time-consuming and complex process.
2. The county should encourage farmer participation in the Voluntary Stewardship Program to promote the long-term viability of agricultural activities in participating watersheds while protecting and enhancing critical areas as so to help relieve the regulatory burden.
3. The County should provide the agricultural community with an advocate, or “agricultural liaison”. The advocate will provide technical assistance, and facilitate objectives of the County’s Working Lands Strategic Plan, as well as the Voluntary Stewardship Program.
4. Noxious weeds pose a significant economic threat to agriculture. The County Noxious Weed Control Board should have the opportunity to recommend control options as part of their integrated pest management program in accordance with the proposed Ground Water Management Plan, the Thurston County Pest and Vegetation Management Policy, and any other applicable county policies.
5. Thurston County shall not be precluded from regulating agricultural chemicals if adequate protection of the resources and public health are not being met by existing regulatory agencies.
6. Within Thurston County, agricultural activities should be given protection from nuisance claims in accordance with State law, RCW 7.48.305.

7. The County should continue to work with flood agencies and neighboring jurisdictions to address ongoing flooding problems of the Chehalis River and other areas that adversely affect agricultural operations.

ACTION NEEDS FOR OBJECTIVE C:

1. *Provide training and education to county planning and permitting staff on agricultural issues and regulations to ensure consistent interpretation and application of rules affecting agriculture. County staff should assist farmers with meeting regulatory requirements and navigating the regulatory environment.*
2. *Establish a position for an agricultural liaison to assist farmers in navigating the regulatory environment, along with issues and regulations specific to agriculture in Thurston County.*
3. *Provide the Agriculture Advisory Committee the opportunity to comment on development and regulatory proposals that could adversely impact agriculture. Evaluate the impact of new regulations on agriculture to be sure they do not threaten a continued agriculture industry in Thurston County.*
4. *If administratively feasible, expand the resource use notice (see below) provision to all farms enrolled in the current use Farm and Agriculture Open Space Tax Program (assessor). This provision should only be implemented if notices can be generated automatically via computer, and would not require additional staff resources to administer.*

GOAL 2: CONSERVE AGRICULTURAL LAND OF LONG-TERM COMMERCIAL SIGNIFICANCE.

OBJECTIVE A: Prioritize agricultural lands of long-term commercial significance for conservation.

POLICIES:

1. Designated agricultural lands should be zoned at very low densities to ensure the conservation of the resource for continued agricultural use.
2. Non-agricultural development within designated agricultural areas should be limited to non-prime farmland soils where possible.
3. Non-agricultural development within designated agricultural areas should be compactly developed, in order to conserve the largest area possible for continued agricultural use.
4. The county discourages the establishment or expansion of local improvement districts, utility local improvement districts, or sewer, water or public utility districts into designated agricultural areas of long-term commercial significance.

5. Except within urban growth areas, land uses that are adjacent to long-term commercial agriculture areas should be of compatible use, such as sawmill operations, warehousing, agri-businesses, and low density residential.
6. Adequate water rights should be reserved for designated agricultural land of long-term commercial significance.
7. The designation of agricultural land of long-term commercial significance should be reevaluated if changes in surrounding land use or farming economics create severe losses lasting several years, covering a wide range of crops or products, and affect a majority of the producers in the area.
8. A resource use notice should be placed on any new subdivision or residential building permit located within 500 feet of designated agriculture land of long-term commercial significance, which states that a variety of commercial agricultural activities may occur that may not be compatible with residential development. The notice should also state that a person's right to recover under a nuisance claim against agricultural activities may be restricted.

ACTION NEEDS FOR OBJECTIVE A:

1. *Monitor and evaluate density changes surrounding areas of Long Term Agriculture.*
2. *Monitor and report on the acreage of development on agricultural lands (areas with prime farmland soils).*
3. *Monitor and report on the conversion rates of agricultural lands to non-agricultural uses.*
4. *The County should study the problem of water rights for lands designated as long term commercially significant, and adjust designations or policies to ensure that lands intended for long-term agricultural use have the water supply necessary for this use.*

OBJECTIVE B: Provide programs that help farmers of agricultural land of long-term commercial significance realize the capital from the land's development potential without converting it to non-agricultural uses.

POLICIES:

1. Educate and encourage farmers to utilize Transfer of Development Rights (TDR) and Purchase of Development Rights (PDR) programs as economic incentives to stay in agriculture.
2. Encourage farmers to participate in the VSP to maintain and improve the long-term viability of their agricultural operations.

ACTION NEEDS FOR OBJECTIVE B:

1. *Continue implementation and improve effectiveness of the Transfer of Development Rights program by educating eligible farmland owners about the program and encouraging the cities and towns to maintain receiving areas and provide incentives for application of transferred development rights. Track the number of outreach interactions regarding TDR and PDR programs.*
2. *Maintain consistency in determining the number of development rights to be credited to farmland owners under PDR and TDR programs (1 right per 5 acres).*
3. *Once 50 percent or more of the total acreage of long term commercially significant lands are conserved through either a permanent conservation easement, research and evaluate expansion of TDR sending areas to include rural land outside of the Long Term Agriculture designation (RCW 39.108.050). Conduct targeted outreach to encourage farmers, cities, and developers within sending and receiving areas to participate in the Transfer of Development Rights program.*

AQUACULTURE RESOURCES – GOALS, OBJECTIVES AND POLICIES

GOAL 3: PROTECT AND PRESERVE AQUACULTURE GROWING AREAS TO ENSURE AN ADEQUATE RESOURCE BASE FOR LONG-TERM USE.

OBJECTIVE A: The County should provide land use and water management programs to conserve and enhance commercial marine aquaculture areas and land based aquaculture for long-term economic use.

POLICIES:

1. Impacts to shellfish growing areas classified for harvest by the Department of Health should be addressed throughout County ordinances.
2. Uses of lands that are near designated marine aquacultural areas should be compatible, such as forestry and low density rural residential. Those uses should not increase stormwater runoff or otherwise degrade water quality for aquacultural use.
3. Facilities for land based and marine aquacultural operations should be protected from incompatible adjacent or nearby land uses.
4. Land based and marine aquacultural activity should not be considered a nuisance if carried out in a reasonable manner and within applicable regulations. Restrictions should not be imposed on aquacultural activities unless they are necessary for preserving the public health, welfare, and safety.
5. Proposed residential and other uses in aquacultural areas should be developed in a manner that minimizes potential conflicts with aquaculture operations.
6. Aquacultural activities should be undertaken in a way that minimizes adverse impacts, such as views from upland property and general environmental quality.

7. Aquacultural operations that draw on groundwater supplies should not degrade the quality nor substantially reduce the quantity of groundwater.
8. Water quality in the county's marine and inland waters, and groundwater in the county should be protected from degradation. Degraded waters should be restored within the drainage basins of designated commercial marine aquaculture areas, or areas of significant recreational shellfish harvesting.
9. Landowners in drainage basins feeding aquaculture growing waters should be eligible for the Open Space Tax Program, if they undertake conservation measures to protect water quality.

ACTION NEEDS FOR OBJECTIVE A:

1. *Reevaluate and improve regulations that affect shoreline development, critical area protection, public health and water quality in order to preserve the ability of commercial and recreational harvesters to use the shellfish resource. Review and update County ordinances as new information on shellfish protection becomes available as a result of Shellfish Protection District and state agency studies.*
2. *The County, in cooperation with the Washington State Department of Health, should continue regular, ongoing water quality monitoring of marine waters, watersheds and groundwater.*
3. *The County, in cooperation with the Thurston Conservation District, WSU-Cooperative Extension, and other agencies, should implement education programs for residents of watersheds draining into shellfish growing areas classified by the state Department of Health. Such education should focus on how to maintain septic and reduce land use activities that threaten downstream shellfish harvest areas.*

RELATIONSHIP TO THE SHORELINE MASTER PROGRAM:

The Shoreline Master Program is the county document which governs development on the shorelines in compliance with the State Shoreline Management Act (RCW 90.58). Within the master program there are policies and regulations relating to aquaculture. The Comprehensive Plan goals, objectives and policies are intended to complement those in the master program; both documents should be consulted in reference to developing in the shoreline area.

FOREST RESOURCES – GOALS, OBJECTIVES AND POLICIES

GOAL 4: CONSERVE FOREST LANDS IN ORDER TO MAINTAIN A VIABLE FORESTRY INDUSTRY WHILE PROTECTING ENVIRONMENTAL VALUES.

OBJECTIVE A: Forest lands should be conserved and enhanced for long-term economic use.

POLICIES:

1. Residential development adjacent to forestry uses should occur in a manner which minimizes potential conflicts and reduces unnecessary conversion of forest land through use of such mechanisms as clustering, buffers, etc.
2. The county supports and encourages the maintenance of forest lands in timber and current use property tax classifications consistent with RCW 84.33 and 84.34.
3. Within Thurston County, forest practices should be given protection from nuisance claims in accordance with state law.
4. The county should provide outreach and information to forestland owners about county regulatory and permitting processes.
5. The County should seek funding opportunities to be used to purchase development rights from willing forest landowners to preserve the resource for future generations.
6. The County should work with conservation groups, commercial family forest land owners, and others to encourage voluntary participation in a Purchase of Development Rights (PDR) Program for the conservation of managed working forest lands.

ACTION NEED FOR OBJECTIVE A:

1. *Continue to publicize and encourage enrollment in the Open Space-Designated Forest Land and Open Space-Timberland tax programs.*
2. *Expand the Transfer of Development Rights program to include areas of Long Term Forestry of commercial significance.*
3. *Provide training opportunities for staff to learn about forest landowner issues, and to ensure consistent interpretation of regulations applicable to forest lands.*
4. *Explore the use of county funds to purchase development rights from willing forest landowners to encourage continued tree farming.*
5. *The County should coordinate and collaborate with other funding sources to obtain matching funds for purchase of development rights.*
6. *Explore the use of carbon offset projects (Washington Environmental Council) for funds to preserve forest lands.*
7. *The County should work with the Department of Natural Resources to create an informational handout on state and county permitting requirements for forest landowners.*
8. *If administratively feasible, expand the resource use notice (see below) provision to all forest lands enrolled in the Designated Forest Land or Open Space-Timberland Tax Program. This*

provision should only be implemented if notices can be generated automatically via computer, and would not require additional staff resources to administer.

OBJECTIVE B: Provisions should be made for forest lands to accommodate public recreation and conservation of fish and wildlife habitats, scenic vistas, and nearby property values.

POLICIES:

1. Public trails, camping facilities, and other low intensity recreation uses are encouraged in forest lands.
2. The county endorses the concept of cooperative resource management as developed in the Timber, Fish and Wildlife agreement, which is an agreement among industrial timber landowners, environmental groups, state resource agencies, and Indian tribes for managing the state's public and private timber lands and public resources.
3. Some mature forest stands should be purchased in the metropolitan fringe areas of the county for their historic and aesthetic values for parks and other recreational uses, unless they are designated as forest lands of long-term commercial significance.
4. When timber harvesting is for conversion to other uses, the county should ensure that harvesting is done in a manner compatible with land uses of the surrounding area and maintenance of water quality, environmentally sensitive features, and fish habitat.
5. Owners of forest lands planned for conversion to another use should provide buffers between their property and adjacent forestry uses.
6. Forestry activities should not alter wetlands or stream corridors.

ACTION NEEDS FOR OBJECTIVE B:

1. *Encourage landowners to seek grant proposals to increase recreational public access on private forest lands.*
2. *Encourage landowners to manage their forestlands for water, wildlife, fisheries, aesthetics, and timber production through multi-resource management plans, demonstration sites, and information and education.*

GOAL 5: CONSERVE FOREST LANDS OF LONG-TERM COMMERCIAL SIGNIFICANCE IN ORDER TO ENSURE AN ADEQUATE LAND BASE AND DISCOURAGE INCOMPATIBLE USES.

OBJECTIVE A: Forest lands of long-term commercial significance should be conserved (no net loss) and enhanced for productive economic use.

POLICIES:

1. The primary land use activities in forest lands of long-term commercial significance should be commercial forest management, agriculture, mineral extraction, recreation, accessory uses, and other non-forest related economic activities relying on forest lands.
2. Land use activities within or adjacent to forest lands of long-term commercial significance should be sited and designed to minimize conflicts with forest management, and other activities on forest land.
3. Commercial forest land considered desirable for acquisition for public recreational, scenic and park purposes should first be evaluated for its impact on a viable forest industry and local government revenue and programs.
4. The county discourages the establishment or expansion of coal improvement districts, utility local improvement districts, or sewer, water or public utility districts in lands designated as long-term commercial significance which result in the imposition of assessments, rates, or charges on designated forest land.
5. Clustering of residential development on adjacent rural lands is encouraged. The open space in clustered development should be adjacent to the forest lands of long-term commercial significance.
6. The county should encourage the continuation of commercial forest management by supporting land trades that result in consolidated forest ownerships and are in the public interest.
7. The county should encourage the continuation of commercial forest management by working with forest managers to identify and develop other incentives for continued forestry.
8. The County should strongly discourage residential development within the Long Term Forestry designation. However, nothing in this policy shall be construed to prevent the owner of designated Long Term Forestry from living on his/her land, provided that applicable building requirements are met.
9. Subject to any state or local regulation of critical areas, the county encourages the multiple economic use of forest land for a variety of natural resource and other land use activities particularly suited for forest lands because of physical and topographical characteristics; remoteness from populated areas; availability of water supplies; the quality of the forest environment; or where the efficient provision of statewide or regional utilities, energy generating and/or transmission facilities, or public facilities require access across or use of such forest lands.
10. Designated forest lands of long-term commercial significance should be protected from nuisance claims from neighboring development through a resource use notice placed on any new subdivision or residential building permit located within 500 feet. The notice should state that a variety of forestry activities may occur that may or may not be

compatible with residential development, and a person's right to recover under a nuisance claim against forestry operations may be restricted.

ACTION NEED FOR OBJECTIVE A:

1. *Active Long Term Forestry lands should be encouraged to enroll in the Assessor's Designated Forest Land or the Open Space-Timberland Tax Program.*
2. *Monitor and report on the acreage of forest lands to determine if no net loss is being met.*
3. *Monitor and report on acreage of forestland enrolled in protection programs, such as open space designated forest land or open space timberland, designated long term forestry, TDR, PDR, and VSP.*
4. *Monitor and report on the conversion of forestland to non-forest uses outside of the Long Term Forestry designation.*

GOAL 6: PROTECT RURAL FOREST LANDS ENROLLED IN A CURRENT USE TAX ASSESSMENT PROGRAM FROM PRESSURES TO CONVERT TO OTHER USES.

OBJECTIVE A: Provide measures to protect owners of rural forest lands from development pressures.

POLICIES:

1. Development regulations should accommodate and encourage clustering of residential development on rural lands adjacent to rural forest lands. The open space in clustered development should buffer rural forest land from development.
2. Land use activities adjacent to forest land in rural areas should be sited and designed to minimize conflicts with forest management and other permitted activities on forest land.
3. A Purchase of Development Rights (PDR) Program should be utilized as an incentive for property owners to conserve forest lands within the county to ensure that working forest lands continue to stay available for such uses.

ACTION NEEDS FOR OBJECTIVE A:

1. *Study the impacts of cluster development on forest lands to ensure that clustering is achieving the intended benefits of minimizing impacts to resource industries and enhancing rural character.*
2. *Expand eligible sending areas within the Transfer of Development Rights (TDR) program to Long Term Forestry.*

MINERAL RESOURCES – GOALS, OBJECTIVES AND POLICIES

GOAL 7: IDENTIFY, DESIGNATE AND CONSERVE MINERAL RESOURCE LANDS OF LONG TERM COMMERCIAL SIGNIFICANCE.

OBJECTIVE A. Identify, classify and designate mineral resource lands that are not characterized by urban growth, that contain commercially significant mineral deposits, and that satisfy applicable criteria established by the Growth Management Act (GMA) statute and rules, and Thurston County’s Comprehensive Plan.

POLICIES:

1. Using the best information available, Thurston County should identify all unincorporated lands that contain commercially valuable deposits of mineral resources. This inventory should be periodically updated every 4 years. If no data is available for an update at 4 years, the inventory should be reevaluated for update again at the 8 year GMA update cycle.
 - a. Thurston County has completed a preliminary geologic inventory of large areas throughout the county (“prospects”) containing deposits of sand, gravel, bedrock and other mineral resources. The locations and nature of these resources are mapped and described in a report titled “Mineral Lands of Long-Term Commercial Significance Inventory Study” (Associated Earth Sciences, Inc., 2017). The study will be updated and revised periodically as new geologic information becomes available.
 - b. The inventory excludes lands characterized by urban growth, including land within cities, designated urban growth areas, and certain lands owned by federal, state and tribal governments, for which the county lacks legal authority to designate and regulate resource lands.
 - c. The County should establish a process to periodically (on a 4 year basis) notify and allow the owners of property that are not currently included in the Mineral Resource Lands inventory to petition to be considered for inclusion. The petition shall include:
 - i. Technical and geologic information that support mineral resources exist, such as boring samples or subsurface geologic data, including reported depth, volume and area,
 - ii. Associated maps developed by a qualified geologist to provide evidence of marketability and value of the mineral deposit, and
 - iii. Information that indicates mineral resources meet County established criteria for classification and designation.
 - d. A landowner may submit application for inclusion in the Mineral Resource Lands Inventory outside of the 4 year update cycle by filing a comprehensive plan amendment. In addition to the criteria under policy 1(c), the landowner shall include:

- i. Submittal of a master application and comprehensive plan amendment application with associated fees.
2. Designated mineral resource lands are identified on Comprehensive Plan **Map N-2**. The mineral resource designation is an overlay to the underlying land use designation of property shown on the Comprehensive Plan Future Land Use Map, which supplements but does not change the underlying land use designation of affected properties.
3. Properties that are currently designated as mineral resource lands in the Comprehensive Plan and/or that are operating pursuant to a valid mining permit are considered to be mineral resource lands of long-term commercial significance.
4. Designation as mineral resource land indicates that the property has been reviewed to determine the presence or absence of specific geologic, land use and environmental features at a county-wide, comprehensive planning level, and that the land is potentially appropriate for mineral extraction subject to adopted site-specific review and permitting procedures and applicable development regulations. Designation does not convey any permit, approval or authorization to mine or otherwise use, alter or develop any designated property, and is not a substitute for site-specific review and permitting of a proposed mining operation consistent with applicable Thurston County development regulations. Designation does not create a presumption that an individual property or project should be approved for mining.
5. Lands that contain commercially significant mineral resources should be excluded from designation if potential mineral extraction in the affected location(s) would significantly impact or conflict with established or planned land uses or land use patterns or with important environmental resources; or would be incompatible or significantly conflict with goals, policies or directives established by the Growth Management Act or Thurston County policies or regulations; or are beyond the County's legal authority to designate or regulate.
6. Designation as mineral resource lands in the Thurston County Comprehensive Plan is a pre-condition for submitting an application to the county to extract mineral resources on a specific site.
7. Using the best information available, Thurston County should identify all unincorporated lands that meet the minimum designation requirement. The Designated Mineral Resource Lands map (**Map N-2**) should be periodically updated every 4 years. If no data is available for an update at 4 years, the designation should be reevaluated for update again at the 8 year GMA update cycle.
 - a. The County should establish a process to periodically (4 year cycle) allow the owners of property that are not currently included in the Designated Mineral Resource Lands map to petition to be considered for inclusion. The petition shall be based on the following process:
 - i. Submittal of necessary geologic information, including: (1) Technical and geologic information that support mineral resources exist, such as boring

3. *Monitor and report on the acreage of mineral operations that are permitted, including the acreage of permitted operations outside of mapped designated mineral lands (Goal 7, Objective A, Policy 6).*
4. *Ensure that operating mines are registered through the County.*

OBJECTIVE B. Ensure that lands adjacent to designated mineral resource lands do not interfere with mineral extraction.

POLICIES:

1. Mineral extraction industries should be allowed to locate where prime natural resource deposits exist.
2. Designated mineral resource lands of long-term commercial significance should be conserved for potential mineral extraction, and the use of adjacent lands should not interfere with the use of these lands for mineral extraction. Adjacent lands should be zoned for compatible rural uses or resource uses.
3. Mineral extraction sites that are being operated in accordance with applicable best management practices and other laws and regulations should be given increased protection from nuisance claims from landowners who have been notified of designated mineral lands and/or the mineral extraction site.
4. New residential uses should be discouraged from locating near prime designated mineral deposit sites until mineral extraction is completed, unless adequate buffering is provided by the residential developer.
5. A permit may be issued for properties within a certain distance of designated mineral resource lands only after the resource use notice has been signed by the property owner and recorded against the property, according to the requirements in the Thurston County Code. The notice shall contain a statement that the ability of owners or occupants to recover for nuisances arising from activities on the designated mineral lands may be restricted. The notice shall also inform that an application might be made for mining-related activities, including mining, extraction, washing, crushing, stockpiling, blasting, transporting, and recycling of minerals.

ACTION NEEDS FOR OBJECTIVE B:

1. *Monitor and report on the number of subdivisions within the Rural Residential Resource 1/5 and Mineral Resource Lands overlay. Track overall average parcel size for this zone within the Mineral Resource Lands overlay.*
2. *Study the impacts of cluster development on mineral resource lands to ensure that clustering is achieving the intended benefits of minimizing impacts to the resource industries and enhancing rural character.*
3. *Work with mineral extraction operators in the county to develop a “good neighbor” relationship. This could include encouraging mining operators to voluntarily provide notice of activity to nearby landowners.*

4. *Monitor and reevaluate the minimum setbacks from residential areas as required by the Mineral Extraction Code to ensure adequate protection of public health and safety.*

GOAL 8: ENSURE THAT IMPACTS TO THE ENVIRONMENT AND OTHER SURROUNDING LAND USES FROM EXTRACTION ON MINERAL RESOURCE LANDS OF LONG-TERM COMMERCIAL SIGNIFICANCE ARE MITIGATED FOR AND MANAGED THROUGH THE PERMITTING PROCESS.

OBJECTIVE A. The County should provide regulatory mechanisms that balance and minimize conflicts between extractive industries, other land uses, and general environmental concerns.

POLICIES:

1. Designated mineral resource lands should be located in low density rural areas where conflicts between extraction operations and surrounding land uses can be avoided or minimized. Designated lands should not be characterized by a predominance of environmental constraints.
2. Extraction industries shall not adversely impact adjacent or nearby land uses, or public health and safety.
3. Areas where existing residential uses at densities of greater than 1 unit per 5 acres predominate shall be protected against intrusion by mineral extraction operations.
4. Buffer mineral extraction sites that are adjacent to existing residential areas. Buffers could consist of berms and vegetation to minimize impacts to adjacent property owners.
5. Mineral extraction activities shall not negatively affect nor endanger surface and groundwater flows and quality.
6. Some critical areas may prohibit or restrict allowed mineral extraction uses. Consider critical areas, including fish and wildlife habitat, wetlands, floodplains, aquifer recharge areas, and geologic hazard areas at the permit level before approving mineral extraction, as regulated under Thurston County Code, Title 24.
7. Consider maintenance and update of public roads at the permit level before approving mineral extraction.

ACTION NEEDS FOR OBJECTIVE A:

1. *Monitor and report on the acreage of critical areas that are directly affected due to permitted mineral operations.*
2. *Ensure that the County has the necessary staff resources to regularly monitor all mines for compliance with the Mineral Extraction Code.*
3. *Review and determine if annual registration fees for mines need to be increased in order to cover monitoring costs.*

4. *In order to ensure maximum protection of public health and safety and the environment, the County should conduct further studies on the health impacts of mining and accessory uses, including asphalt plants and concrete plants, the creation of lakes from mining operations, and other impacts to sensitive areas located near mining sites. Future designations of mineral lands should take this information into account.*
5. *Track number of applications for new and expanding mineral extraction. If needed, create and maintain a register of permits specifically for new and expanding mineral operations. Ensure register is available to the public on the County website.*

GOAL 9: ENSURE THAT RECLAMATION AND RESTORATION ARE DESIGNED FOR THE APPROPRIATE POST-EXTRACTIVE USE OF THE SITE AND ARE COMPATIBLE WITH PLANNED FUTURE USE OF ADJACENT LANDS.

OBJECTIVE A. Identify and plan for post-extractive uses of mineral resource lands at the time of permitting a mineral operation.

POLICIES:

1. Post-extractive uses should be identified, at the time of permitting, for mineral resource lands.
2. Restoration of mineral extraction sites should occur successively as the site is being mined. The site should be restored for the appropriate future use and should blend with the adjacent landscape and contours.
3. The county shall ensure that mine site excavation and reclamation are consistent with county, city, and tribal land use plans and the state Surface Mine Reclamation Act (RCW 78.44).
4. The county should pursue innovative reclamation plans in concert with private landowners for the final conversion of exhausted mineral resource lands into desirable uses – such as park land, open space, forest land, community lakes, housing, agricultural land, and other uses – that are compatible with the Comprehensive Plan and zoning. These uses should be compatible with adjacent land uses. Such reclamation plans will be considered as favorable mitigations of the mining activity during the county’s SEPA review process.

ACTION NEEDS FOR OBJECTIVE A:

1. *Investigate inactive and/or unpermitted mining sites, report on any problems associated with these sites, and work with the appropriate state agencies to resolve these issues.*