

Rural Living in Thurston County



Produced by:
Thurston Conservation District

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“Local Solutions to Local Problems”

Rural Living Handbook



Thurston Conservation District

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Our Mission Statement:

“To conserve and sustain the beneficial use and protection of local natural resources in partnership with Thurston County rural, agricultural, and urban communities using volunteerism, cooperation, leadership, education, and technical & financial assistance in a non-regulatory role.”

The **Thurston Conservation District** was formed in 1948 by the residents of Thurston County. Conservation Districts (CD) are legal subdivisions of state government that administer programs to conserve natural resources. CD's are governed by volunteer boards that establish priorities and set policy. CD's exist in every county in the United States and work closely with the Natural Resources Conservation Service (formerly known as the Soil Conservation Service), a branch of the United States Department of Agriculture.

The District Board of Supervisors typically meets at 3:00 PM on the 4th Tuesday of every month at the Thurston Conservation District meeting room. It is at this time that we discuss district business. The public is welcome and encouraged to attend. Please call our office to confirm the time, date and location.

Please Note: This handbook does not contain legal or site-specific land management advice. The purpose of this handbook is to address local natural resources in a general sense. The Conservation District recognizes that each parcel of land has its own unique natural resource issues. We have done the best we can to present current information, however we recognize this document may contain errors.

We wish to thank the Kittitas County Conservation District for the privilege of utilizing their handbook's focus and format as the basis for this one. Printing of this publication was possible through a grant from the Washington Department of Ecology.

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Thurston Conservation District

There are many services Thurston Conservation District (TCD) provides that may not cross your mind. For instance, we have equipment such as a mobile poultry processing unit, a manure spreader, spin & drop spreaders, and weed wrenches available for loan to help you manage your land.

Do you have a huge manure pile you want to be rid of? Are you looking for manure for your fields/gardens? Give us a call. We offer a manure brokering service to Thurston County residents.

Is your lawn not so green? Are your pastures tired? Is your garden not producing the way it used to? TCD has a soil testing program as well as Certified Crop Advisers available on staff to help you determine the amendments that are needed to restore soil health.

In certain cases, we can arrange for financial assistance (when available) to help you implement practices that help to improve water quality. This may be something as simple as fencing livestock out of a creek or as elaborate as a pole barn to cover your manure pile.

Would you like to set aside a part of your property for wildlife habitat? Our technical staff can evaluate your property and advise you on how best to make your property attractive and beneficial for wildlife.

Are your horse pastures muddy and unproductive? Do they have more weeds than grass? We can show you how to manage them and turn them into lush green jewels that your horses will love.

Just bought a new property on which you'd like to farm? Call us! We'll help you do it right! We can advise you where to site your barn, manure storage, pastures and what crops and grasses will grow best.

Our Annual Native Plant Sale event can provide you with low maintenance plants that do best in our soil and climactic conditions. Online ordering begins in October of each year.

Thurston County is a "Right-to-Farm" county. If you would like assistance and explanations regarding the sometimes conflicting or confusing ordinances, please call us.

These are just a few examples of how Thurston Conservation District can help you. There are few things more satisfying than managing your property with everything in balance: good crop or livestock production, water resource protection, and abundant wildlife and habitat. Thurston Conservation District can help you achieve that harmonious integration of your dreams and the land's needs.

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Thurston County, Washington

Thurston County covers 761 sq. miles (487,040 acres). Once covered by glaciers, its soils are unpredictable mixes of sand, gravel, clay, glacial till, and loam.

The county can be divided into three distinctly different areas. The Chehalis River Valley in the western third of the county is comprised of a zone of low-lying hills, valleys, and river bottomlands. These bottomlands, especially in the Grand Mound and Rochester districts, are important farming areas. The soil is relatively fertile, especially when properly amended.

The middle region, which includes the cities of Olympia, Tumwater and Lacey, has the highest urban populations. This region can be termed a trough. It is dotted with small lakes and relatively gravelly soils. Berry crops and pasture do well here.

The eastern third of the county, including the cities of Yelm and Rainer have large areas of prairie and small wetlands. Cattle and other livestock do well here. Agriculture in this district is eclectic, with grassland and livestock farming existing side by side with organic farms, greenhouse agriculture and specialty crops. However, the entire county is experiencing a loss of farmland due to urban development.

Thurston county receives a large amount of rain in the winter months (November-March). This is important as much of our water comes from aquifers that are recharged by rainfall. If we get snow, it is usually in January, when the area experiences the "Pineapple Express", a weather anomaly where a warm, wet low pressure fronts come in from Hawaii and collides with the high pressure, cold, dry winds coming out of Canada. Even without snow, the anomaly drops large amounts of rain that sometimes flood low-lying areas and cause rivers to crest their banks.

- ♦ *Summers usually dry, with very little rain*
- ♦ *Temperatures range from 25°F in winter to 95°F in summer*
- ♦ *Avg. day-time relative humidity is approx. 60% & increases up to 90% at night.*
- ♦ *The sun shines approx. 65% of the time during the summer & falls to 30% in winter.*
- ♦ *Average annual rainfall is 51 inches*
- ♦ *Average growing season is 166 days*
- ♦ *Frost can occur from September 1st to May 15th*
- ♦ *Prevailing wind is from the southwest*

Conservation and Farm Planning

Through conservation planning and implementation of a farm management plan, landowners can reduce environmental impacts and increase farm production. However, improperly managed farms can be major contributors to non-point source pollution. (Explained in Article 6, “Non-Point Source Pollution”, of the Thurston County Sanitary Code, available from Thurston County Environmental Health Department).

Thurston Conservation District’s staff of technicians and specialists can help you develop and implement your **conservation plan**. Your plan is custom made for you and your property, and it can be modified as your business plans or circumstances change.

Developing your plan is simple. Visualize how you’d like your land to look. Decide what things are important to you, what things you want to avoid, and what you want from your land. We suggest you begin by looking around your property and make a sketch including the following:

- | | |
|--|---|
| <input type="checkbox"/> Property boundaries | <input type="checkbox"/> Septic systems and fields |
| <input type="checkbox"/> Fences, arenas, and corrals | <input type="checkbox"/> Bare ground |
| <input type="checkbox"/> Buildings | <input type="checkbox"/> Lawn, garden, and cropland |
| <input type="checkbox"/> Roads, driveways, and paths | <input type="checkbox"/> Trees and shrubs |
| <input type="checkbox"/> Neighboring land usage | <input type="checkbox"/> Weeds |
| <input type="checkbox"/> Wells | <input type="checkbox"/> Streams, ponds, and wetlands |
| <input type="checkbox"/> Topography | |

Using these factors, along with aerial maps, soil maps, and other resources, a District Technician will assist you in developing a plan for your property. The plan will include an inventory of the soils, water (drainages and wetlands), plants and animals. Factors unique to your property will also be included. We can recommend alternative management practices to problems you may have, and you will determine your plan of action and a timeline for completion. In certain cases, financial assistance is available to help cover the costs of implementation.

Your goals and objectives are the initial consideration when developing conservation plans. The decision to develop and implement the plan is **voluntary**. By developing and implementing your plan, you can rest assured that you are in compliance with Thurston County’s non-point source ordinance.

Thurston Conservation District’s staff is highly qualified and experienced. Many of them are farmers, gardeners, and/or livestock owners. *If you would like to develop a conservation plan, need technical assistance, or desire more information, please call us at 360.754.3588.*

Buying Land

Buying rural land is far different than buying a city lot. Most rural land is 'raw' or 'unimproved', meaning it does not have the basic utilities such as electricity, sewage, or water. You must have them developed or installed on the property. This can be costly, especially if the nearest power line is miles from your building site. Accessing your property can be more difficult if the access roads are owned by the county, state, or federal government; or even your neighbor!

Development means installing the basic utilities. Electrical power in Thurston County is provided by Puget Sound Energy. The telephone outside plant (telephone lines to the house) is owned by Qwest. *Both of these utilities can advise you on how service is installed and initiated.*

Contact information for electricity and telephone line installation is provided in the Resource section of this handbook, as well as in your local phonebook. You may also need to contact the Thurston County Planning Department.

Because most rural land is far from sewer lines, you will probably need to install a septic system. Due to our relatively gravelly soils, many septic systems must be professionally designed to prevent contamination of the aquifers. Septic systems must be approved by the Thurston County Environmental Health Department. It is far easier to allow your contractor to handle the septic permitting process, as it is both tedious and complex. Septic tanks must be pumped out every couple of years, depending on use and the number of people using it. There are many septic pumping services available in our area.

Water is the most important factor of any development. Some rural communities provide community wells, but in most cases, you will have to have a well drilled on your property. There are several well drillers in the area.

Access to your land

When you purchase land, make sure you have access to it. If you buy land that requires crossing private property, you should determine who owns the land and establish an easement. Seek legal advice for this aspect, as there is nothing more frustrating than not being allowed access to your own property.

Access from a county road requires an access permit from Thurston County Public Works Department. Access from a state owned road is managed by the State Department of Transportation. The county maintains the majority of roads. However, landowners are expected to maintain access and easement roads not owned by the county. Private roads should be maintained by the landowners using them.

Some mortgage companies will not lend money for new houses unless there is a "Road Maintenance Agreement" as part of the package.

Rural Landowner Responsibilities

The responsibilities associated with rural living are different from those of city living. You must be both a good neighbor as well as a responsible land steward. We all have an impact on the land and our environment. Fulfilling your land use goals can be accomplished in a manner that does not scar the land, pollute the water or cause problems with your neighbors.

Many services city dwellers take for granted are unavailable to country dwellers. For example:

- ◆ Some rural areas do not have roadside trash pickup, so you must locate a transfer station where you can take your trash, junk, and recyclable items. *It is against the law to burn or bury garbage, or to allow it to pile up in such quantities that it attracts rodents and insects. (See Thurston County Waste Disposal section)*
- ◆ Although you have free mail delivery, it is your responsibility to purchase, erect and maintain a mailbox. This includes maintaining access to the box for your postal deliverer in winter or other inclement weather. Many rural areas have clustered mailboxes so the deliverer only has to make one stop. *Check with the nearest Post Office before you erect a mailbox.*
- ◆ Your access road is also your maintenance responsibility. Not only must you maintain the road in drivable condition, as private roads are not plowed or repaired by county road crews.
- ◆ The wells, septic systems, and electrical systems on your property are your responsibility. If you've bought developed land and are planning to build on it, do not begin excavation of any sort until all underground cables are located. The service is free and you must call two days in advance of digging. (See *Resources section*)
- ◆ Noxious weeds must not be allowed to grow on your property. Many are introduced unintentionally and can become a serious problem. Their seeds are brought in by vehicles or plants that escape from private gardens. Even so, if the County Noxious Weed Agency learns there are noxious weeds growing on your property, you will be contacted either in person or by mail. Failure to control noxious weeds can potentially result in fines and the Weed Board may elect to hire a contractor conduct removal at your expense. The Weed Board staff can pre-emptively help you identify which plants are noxious and how to remove them. In some cases, the weeds are dangerous, and must be disposed of in special ways. If noxious weeds are growing on your road easement, the county may spray or mow them at your expense.

- ♦ Fire department services are provided for by your taxes. Many rural districts have volunteer fire departments. Timeliness of response may depend on the availability of firefighters. Because there are no water mains in most rural areas, firefighters must bring water. No one wants to lose his or her home due to fire. Therefore, your family should practice good fire prevention inside the home and on your property. A good habit is to establish a 'defensible area' around your house and buildings. This buffer zone will not burn as readily in case of a forest or grass fire. Keeping grassy areas mowed, only a few trees around the house that are separated enough area to prevent crown fires, and keeping areas around your buildings kept free of trash or other flammables are all ways to prevent your home from destruction. (*See Fire! section*)

Also, contact your local fire department or the WA Department of Natural Resources for a fire prevention evaluation. TCD can provide "firewise" information to you as well.

- ♦ Rural school districts provide bus services on public roads. If your home is a distance from the nearest public road, it is your responsibility to get your children to and from the bus stop.

Living in rural areas means that your neighbor may be doing business that produces objectionable odors. Dairy and chicken farms, by their very nature, produce large amounts of manure. Farmers spread manure and fertilizers on their land to produce crops and animal feeds, from Spring to Fall. Most stockmen manage their manure wisely, but many people new to rural living will find that manure stinks.

In addition, animals make noise. Roosters crow, cows bellow and horses neigh at all times of the day or night. While everyone should take measures to reduce the impact their activities produce, some are simply unavoidable. It is not appropriate to move to the country and then demand that the chicken farmer next door shut down business.

The lesson here is: **do your research before you buy your land.** Many areas now have covenants that specify any animal restrictions, but they must allow a grandfather clause, meaning that the businesses existing prior to the covenant are allowed to continue business. If you think your neighbors might annoy you with their business, perhaps that property is not the best one for you.



Being Neighborly

Harmony with one's neighbors is never easy and can be more difficult in the country. Conflicts between landowners can arise from the most mundane causes, misunderstandings or even illegal or unlawful behavior. A better understanding of the reasons behind these conflicts can make for a more harmonious relationship between neighbors.

Pets

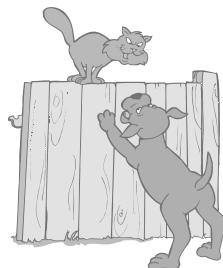
Thurston County has a leash law that applies county wide, regardless of where you live. It means your dog must be under your control at all times. It is illegal to allow your dog to roam free. Not only can unleashed pets be a nuisance or threat to your own pets, children or home, but a threat to livestock and wildlife as well. Livestock owners have the right to protect their livestock and in some cases will destroy dogs that threaten their animals.

Allowing your cats to roam is also illegal. Cats destroy large numbers of wild birds, defecate in garden beds, and male cats will spray urine on buildings and walls. Unneutered pets, who are allowed to roam free, will reproduce and add to the already staggering number of unwanted animals in animal shelters. If you keep your dogs on your property and your cats indoors, you can rest assured your pets are safe and respecting the safety of wildlife and neighbors.

Pet waste is one of the major sources of water pollution and shellfish bed contamination. Pick up pet waste and dispose of it in the garbage! You may also bury it in a hole at least a foot deep and more than 100 feet from any well, ditch, stream or lake. *Contact Thurston Conservation District for more information on proper pet waste disposal.*

Fences

The old saying "good fences make good neighbors" still holds true today. Fences serve to keep your livestock on your property. Under Washington law, when agricultural landowners share a property line, they are responsible for half the maintenance of the existing fence or equally share in the construction of one to divide the two properties. Contacting adjacent landowners and working out a fence maintenance schedule will help both landowners prevent unwanted livestock use and improve communication.



Private property and privacy

Many people new to rural living are unaware that boundaries exist regardless of whether or not it is fenced or posted. Sometimes people trespass when they have preconceived notions about open ranges and federally or state owned land. Landowners are not required to post 'No Trespassing' signs. The law states that one is trespassing if one has not received permission from the landowner to be there, regardless of the activity. The landowner is not obligated to inform the public of ownership. To prevent unintended trespass, use a good county map that clearly shows public lands and roads. ALWAYS ask permission before entering private land. If permission is denied, you must stay off the property or leave the property immediately. Even when you are doing something as harmless as walking across a field, be sure you have permission!

Being a good neighbor in rural areas

Thurston County has a Right-To-Farm Ordinance that allows, encourages and promotes agricultural activities in rural areas. Much of the list below recognizes and respects that policy.

1. Respect your neighbor's endeavors.
2. Cooperatively build and maintain boundary fences so that neither your livestock nor your neighbors' trespass.
3. Control your dogs so they do not harass, harm or kill your neighbor's livestock.
4. Recognize that moving livestock and farm machinery on county roads is necessary. Be cautious and prepare for delays.
5. Understand that some actions, such as burning ditches or running farm machinery after dark are necessary farm activities.
6. Prevent noxious weeds from moving from your property to others via wind, water, or other means.
7. If you use pesticides or herbicides, use only as specifically directed and use them so that sprays do not enter local waterways or drift onto your neighbor's land.
8. Remember, it is unlawful to use the county roadway as a parking area for overflow traffic during yard sales and family gatherings.
9. Realize that your aquifer is also your neighbor's.
10. Insure you have the proper land base to support your livestock and other agricultural activities.

Respect for the land

While you have the right to utilize your land any legal way you choose, you have the moral and ethical duty to do so respectfully. Do not contaminate the aquifer. Do not allow livestock to overgraze it. Do not turn your land into a landfill, a toxic waste site, or a junkyard. The legacy of a good landowner is a property that is in as good or better condition when you leave it, as it was when you bought it. Your neighbors, your children and the land itself will benefit from and appreciate it.

Fire!

No one wants to lose their home or their lives to fire. However, every year, especially during the dry season, fires destroy farms, forests, and homes. Living in rural areas means fire departments have longer response times, must carry their own water, must traverse difficult terrain and often cannot get their equipment close enough to effectively fight a fire. Heeding the law and a little common sense will go a long way toward protecting your home and farm from fire.

Thurston County has a permanent burn ban. This means all outdoor burning without a permit is banned. Permits can be acquired through either the Department of Natural Resources or your local fire department. The permit will have certain limitations in order to protect life, property, and air quality. At times of high fire danger, no permits will be issued, and anyone caught illegally burning will be fined. An escaped fire can be very costly in the destruction of lives and homes. The responsible property owner or tenant is responsible for all damages, firefighting costs, and additionally may be fined. *It is illegal to burn garbage at any time.*

Fire Prevention Tips

Call your local fire department for information on how you can fire proof your home and farm. Here are a few basic tips:

- ☑ Make sure you have a 'defensible area' around your home and buildings. This is an area of little or no vegetation to support large flames.
- ☑ Do not store flammable substances in your home or garage.
- ☑ Clothes dryers are a common cause of fires. Keep lint filters and vent piping clean and free of lint buildup.
- ☑ Keep fire extinguishers in high-risk areas such as kitchens, near fireplaces and woodstoves. Familiarize yourself with how to operate them.
- ☑ Don't leave burning candles or portable heaters unattended, or use gas stoves as a heat source. Keep the areas around them free of flammable items.
- ☑ Wood stoves and chimneys must be certified, properly installed and cleaned regularly.
- ☑ Install smoke detectors outside every bedroom and on every floor of your home. Test them and replace the batteries (if applicable) regularly.
- ☑ Keep matches and lighters away from children. Establish a fire evacuation plan and train your family how to escape a fire. Designate a specific area on your property where all family members must meet after escaping a fire, so that you can account for everybody's whereabouts.



In case of fire—Dial 911!

Thurston County Waste Disposal

Residential Collection:

Trash and recycling pick-up is available throughout all of Thurston County. Waste collection companies also offer “recycle only” service for residents that just want recycling without trash collection. Occasional pickup of large items can also be arranged by calling your waste companies customer service. Organics (food, compostable paper, yard waste) collection is also available.

Trash and (free) Recycling Drop-off Locations:

Waste and Recovery Center, 2418 Hogum Bay Road NE (Lacey)	360.867.2491
Rainier Drop Box, 13010 Rainier Acres Road SE (Rainier)	360.446.2600
Rochester Drop Box, 16500 Sargent Road SW (Rochester)	360.273.5880

Yard Debris Drop-off Locations:

Waste and Recovery Center, 2418 Hogum Bay Road NE (Lacey)	360.867.2491
Silver Springs Organics, 13835 Military Rd SE (Rainier)	360.446.7645

Where Can I Take My...?

There is a host of local recycling and reuse opportunities that can save you money on trash disposal while helping protect the environment. Locations to take medications, Styrofoam, athletic shoes, yard waste, electronics, appliances and more are all posted on an easy-to-use database at: www.WhereDoITakeMy.org. Check it out!

Reusable Items:

Thurston is one of several counties that operates a free-to-use materials exchange website at: www.2good2toss.com. Residents can post listings for items they want to give away or sell for under \$200 and it is a great place to find bargains. Craigslist and www.freecycle.org are also great sites locals use to exchange and dispose of items.

Hazardous Materials: HazoHouse, at the Waste and Recovery Center, is a **FREE** residential service in Thurston County that collects hazardous household waste such as auto products, cleaning supplies, herbicides, pesticides, oil based paint, used motor oil, fuels, florescent lights and other toxic substances. Businesses can use the facility for a small charge. HazoHouse is open Friday-Tuesday. WasteMobile is a mobile hazardous waste collection program that travels to rural locations. (See Information

Stay Connected: Get regular updates from Thurston Solid Waste through Facebook or Twitter. Check out videos from their YouTube channel for ideas to reduce waste or learn about recycling.

Questions? Call Thurston County Solid Waste at 360.867.2491, visit www.ThurstonSolidWaste.org or email us at ThurstonSolidWaste@co.thurston.wa.us

Soil Conservation

Despite civilization, mechanization, and the technological advances we have made, humanity still owes its existence to a six-inch layer of topsoil, as well as the sunshine and rain that make it productive. Maintaining the quality of your soil is the single most important thing you can do to grow healthy, viable plants.

Soil is rock, broken down into minute pieces and improved by the addition of organic matter. Climate, water, temperature and parent material all contribute to soil production. Parent material can include bedrock, volcanic ash, glacial outwash and sand. Depending on the location, it can take more than five hundred years to create an inch of topsoil. Soils are fragile in that they are susceptible to erosion if not protected by a covering of vegetation.

Soils have different textures due to a varying combination of silt, sand, and clay. The mixture determines the characteristics of your soil. Its depth to bedrock or the water table is often a factor that determines or limits land use. The steepness of a slope can also affect soil stability and sustainability.

Consulting the **Thurston County Soil Survey** is a great place to start when you need information about the soil on your land. Soil surveys describe the type and characteristics of the soil found in the county. The data has been collected from field-testing, lab testing, and professional examination. Soil scientists consult with geologists, engineers, agronomists, range managers, and others as part of their research. Surveys are published for every county in the country. You can locate your property in your county soil survey and learn its characteristics, from how well it percolates water to what crops will do best on it. Soils are often named for the district they were originally found in the county. Thurston County's soils tend to be dominated by glacial outwash, the mix of gravel, sand and loam left when the last glaciers receded approximately 10,000 - 14,000 years ago. *Thurston County's Soil Survey is available free of charge from TCD or online at www.nrcs.gov.*

Without good topsoil, life as we know it would be impossible. Our country's topsoils, good to begin with and improved by technological management, are some of the most productive soils on earth. Our standard of living, longevity and health have all improved due to our topsoil and its ability to produce food.

How should we maintain our topsoil?

Protecting it from erosion is perhaps the most important action we can take.

Unprotected soil is eroded by wind and weather. Eroded land is incapable of holding plant roots or nutrients. Water, rain, and snowmelt run off rather than percolate into the soil, removing even more soil with each event. Eventually only bedrock remains, and nothing but algae or moss can grow on rock.

Water Rights

A **water right** is a legal authorization to use a certain amount of water for specific purposes. Washington State law requires certain users of public water to obtain approval from the State prior to actual use of the water. Approval is granted in the form of a water right permit or certificate.

A **surface water** right is necessary for those planning to divert any amount of water from surface waters (water above ground), such as lakes, rivers, streams and springs. Surface water rights are extremely difficult to obtain because of potential conflicts with other resources such as fish. Surface water quantity is regulated under Chapter 90.03 RCW, the Water Code. Non-consumptive water right applications or applications that contain mitigation proposals stand the best chance of approval.

A **ground water** permit is necessary for withdrawal of more than 5,000 gallons per day or if you plan to irrigate more than a half acre of lawn or non-commercial garden. If you use **less than** those amounts, you may have an “exempt well.” This means you are exempt from the permitting process but **not** the regulatory process. Groundwater is regulated by Chapter 90.44 RCW, Regulation of Public Ground Waters. These can be found on the legislature’s website at www.leg.wa.gov/LawsAndAgencyRules/.

Attributes of Water Rights

Water right authorizations generally contain the following information. Some of the items listed may not apply to certain classes of water rights.

- ◆ Specific location for each surface diversion or well authorized under that right
- ◆ Legal description of the location where the water will be used
- ◆ Specific purposes for which the water will be used
- ◆ Authorized season of use
- ◆ Maximum diversion or withdrawal rate
- ◆ Maximum annual quantity that may be used
- ◆ Number of acres that may be irrigated in a season

To issue a water right permit, the Department of Ecology will examine water rights applications and determine if a) water is available, b) proposed use does not impair existing rights, c) proposed use is not detrimental to the public interest and, d) proposed use is beneficial.

Water rights may also include specific provisions that limit the manner and use of water under the right. Right holders may apply to change attributes of a water right, such as the place of use or the point of diversion or withdrawal. Failure to adhere to the specific limits and provisions set forth in the right without an authorization constitutes an illegal use of water and may subject the water right holder to enforcement action.

Why Compliance with Water Laws is Important

Laws regulating water usage date back to the early days of settlement. Laws were established to reduce conflicts among competing water users and to protect the finite resource. The state legislature established the current surface water code in 1917, and the groundwater code was established in 1945. Provisions for fish and wildlife were added in 1949.

As the needs and demands for water in Washington increase, so does the need for water law compliance. Obeying the law serves a number of purposes:

- ◆ Protecting legal water users from impairment or loss of water by those using water illegally
- ◆ Protecting those with senior (older) water rights from harm by those with junior (newer) rights
- ◆ Keeping enough water in streams to allow normal ecosystem functioning and also restore fish runs
- ◆ Keeping enough water in streams for other in-stream uses including recreation, aesthetics and electricity production
- ◆ Ensuring that water being used without authorization is returned to the streams for allocation to others who are waiting in line for new water rights and to assist in restoring stream flows
- ◆ Ensuring water use can be sustained for the long term rather than drying up streams and depleting aquifers faster than they can be recharged
- ◆ Ensuring water laws and the permitting process are credible and deter further illegal use
- ◆ Creating awareness about the importance of wise water use and conservation

Water Conservancy Board

In 1997, the state legislature authorized the creation of water conservation boards to streamline the process of application for and changing of water rights transfers. *The Water Conservancy Board of Thurston County can be reached at 360.570.4416.*

Water rights in Thurston County are regulated by the Department of Ecology.
Please contact them with specific questions at 360.407.6300.

Drinking Water Quality

Rural landowners in Thurston county depend on a well for their drinking water. Wells are direct conduits from aquifers (our shared underground water supply). Wells have the potential to be contaminated if precautions are not taken to protect the health of upstream riparian areas. To prevent the contamination of water resources:

- ♦ Establish and maintain shrubs and grasses along streams and around animal pens to trap and absorb runoff before it reaches streams or groundwater.
- ♦ Locate livestock corrals, pastures and pens away from streams. Use hardened crossings or stock watering tanks to minimize livestock trampling of streambeds.
- ♦ Locate livestock confinement areas and septic tanks down slope and at least 100 feet from your drinking water well.
- ♦ If your well is located in an area frequented by livestock, maintain a buffer zone around your wellhead to protect it.
- ♦ Have your septic tank pumped and the waste properly disposed of every 3-5 years.
- ♦ Avoid over irrigation that can result in runoff and leaching of topsoil, fertilizer and pesticides.
- ♦ Properly manage and dispose of manure, feed, and bedding wastes by spreading them on your croplands. This action will significantly reduce your need for expensive commercial fertilizers. Be sure the soil is not too wet or frozen to absorb wastes.
- ♦ If you have manure for which you have no use, call the Thurston Conservation District. We have a manure brokering service that can match you to someone needing manure.
- ♦ Use farming practices that increase water infiltration and reduce soil erosion such as “no-till”, minimum till, contour strips, filter strips and grassed waterways.
- ♦ For free disposal of pesticides, used motor oil or other toxic substances, contact HazoHouse, a facility run by the county Waste Management Department. (See *Resources section*).

Remember that you share your water source with your neighbors.

For more information on protecting your drinking water, contact the WA Department of Ecology or Thurston Conservation District. Water testing services are available through the Thurston County Public Health & Social Services and their Office of Drinking Water. (See *Resources section* or visit the website at: www.doh.wa.gov/ehp/dw/default.htm.)



Riparian and Wetlands Management

Riparian areas are the transition zones between the land and a body of water. They are comprised of water loving trees like alders, willows, and cottonwoods and various species of grasses, sedges, and rushes. While riparian zones comprise only 5% of the landscape, they contain up to 75% of the plant and animal diversity. Balancing a healthy riparian zone with multiple-use needs, such as road crossings, livestock watering and travel corridors, and providing fish and wildlife habitat, can be accomplished with careful management.

A healthy riparian zone serves as both a buffer between water and land use and as a habitat for fish, wildlife and plants. Wetland vegetation along the water's edge will accomplish many functions:

- ◆ Slow water flow, reduce erosion and property loss
- ◆ Provide habitat: food, water and shelter for fish and wildlife
- ◆ Reduce water pollution by filtering out sediment, chemicals and nutrients from runoff
- ◆ Provide protected travel corridors for wildlife
- ◆ Hold water in the soil, slowly releasing it for longer stream flow and groundwater recharge
- ◆ Protect property by stabilizing stream banks and filtering debris carried in flood waters
- ◆ Increase property values

How can you tell if your riparian zone is healthy? Look at it and ask yourself these questions:

1. Are the stream banks and shorelines well vegetated?
2. Does the stream contain pieces of large woody debris?
3. Are livestock areas, manure piles and trash situated so that there is no potential runoff into the stream or wetland?

If you answered "yes" to all of them, then your riparian zone is probably in good condition. If you answered 'no', you can improve the zone by planting **native** plants and trees. Restrict and control livestock access to the area. Grazing rotation, hardened crossings, using water troughs and building natural log/shrub barriers can protect the riparian area while addressing livestock needs. Livestock access to bodies of water, including riparian areas, streams and irrigation ditches, needs to be strictly managed to limit fecal contamination. *For tips on fence construction, or technical advice on improving your riparian zone, call Thurston Conservation District to speak with one of our habitat specialists.*

If you have **wetlands** on your property, they are protected from management activities that are beyond the scope of this publication. *For more information on the proper management of wetlands, call Thurston Conservation District, the Thurston County Planning Department at 360.786.5490 or the Department of Ecology at 360.407.6300.*

Grazing and Pasture Management

A good grazing management program will enhance your animals' health, improve your pasture condition and increase its production, while lowering your costs.

Good grazing management practices include:

1. Animals are moved from a pasture before the plants are damaged from overgrazing.
2. Plants are allowed to recover from grazing before being grazed again.
3. Animals have adequate forage and are not seeking other food sources.
4. Animals show signs of good health: maintaining or gaining weight, glossy hair coats, and no digestive problems.

Tips for a successful grazing program:

- ✓ **Practice pasture rotation.** This means removing all livestock from a pasture and allowing it to rest.
- ✓ **Subdivide pastures.** Breaking pastures down into small sections (paddocks) and moving animals between them ensures the animals eat all the available fodder. Allow each paddock a recovery period after being grazed.
- ✓ **Don't overgraze!** When your animals have grazed the plants down to four inches in height, it is time to remove them and allow the paddock to rest. Do not allow animals on pasture again until plants are at least eight inches in height.
- ✓ **Mow.** Mow a paddock after removing animals. This not only prevents uneaten weeds from taking over a pasture but also keeps the pasture in a vegetative state. Allowing a pasture to go to seed may send it into dormancy rather than regrowth.
- ✓ **Do a "tug test".** If you have a newly seeded pasture, do the tug test. Tug on a tuft of grass. If it pulls out easily, it hasn't established a root system yet and is not ready for grazing.
- ✓ **Fertilize.** Plants, like any other growing thing, need to be fed in order to grow. Fertilize your pastures by spreading manure or commercial fertilizer at the appropriate rates in between grazing periods. Thurston Conservation District can test your soil and advise you on when and what type of fertilizers to apply.
- ✓ **Irrigate.** Irrigate a paddock or pasture as soon as possible after grazing to get the plants growing again. Do not graze on saturated pastures, as extreme soil compaction may result.
- ✓ **Restrict Access.** In limited space situations, you may only be able to use the pasture for exercise purposes and feed hay to your animals year-round.
- ✓ **Call Thurston Conservation District for assistance in establishing a grazing program.**

Animal Feed and Forage Needs

How do you determine if you have enough feed and forage for your animals?

Pasture forage is what your animal consumes by grazing. It is measured in animal unit months (AUM). One AUM is equivalent to the amount of forage consumed by a 1,000 pound animal in one month.

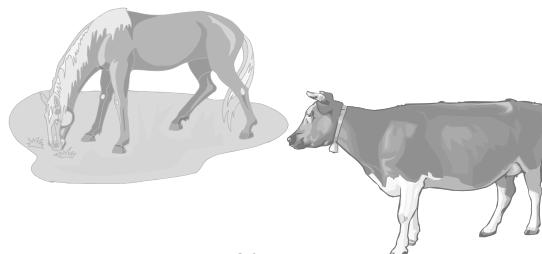
Supplemental feed can be hay, haylage, silage or grain fed to an animal when pasture forage is not available or to supplement their diet. Hay production is measured in tons per acre. As a rule of thumb, an animal will eat approximately 3% of its body weight a day in dry matter.

<u>Animal</u>	<u>Feed</u>	<u>Forage</u>
	(Tons/Mo)	(AUM/Grazing per month)
Cow (1200lbs)	0.4	1.2
Horse	0.5	1.25
Sheep	0.1	0.2
Llama	0.15	0.3
Goat	0.1	0.2

The above requirements are an average. Feed requirements vary with season, level of use, and condition, age and size of the animal. The good stockman knows his animals well enough that he or she can tell when an animal is doing well or needs to have the amount of feed adjusted.

To prevent over use of your pastures, rent or purchase additional pasture or reduce the number of animals. Improving pasture management results in increased pasture health and production.

To learn how much feed/forage your land can produce, or how to improve its production capability, please call Thurston Conservation District.



Weed Management

What is a weed?

A weed is defined as any plant growing where it is not wanted. However, most plants termed 'weeds' are invasive, persistent and aggressively crowd out the desired plants. Some of them are toxic or poisonous and thus are a threat to humans and/or animals.

How do you deal with weeds? The best way to combat weeds is to provide strong competition. Having healthy, vigorous, native perennial plants that compete for space, sunlight, water and nutrients is the best way to keep weeds at bay. Annually harvested fields, vegetable and flower gardens are more difficult to manage because the population of plants is constantly being reduced or removed, giving weeds a chance to gain a foothold.

Learn and use the principles of Integrated Pest Management. Determine what your pest is. Learn its life cycle and the best time to control it. Decide what the threshold is when control needs to be applied, and consider all the options of control. Those options include mechanical, biological, cultural, and chemical.

Noxious weeds are non-native plants that have been designated as a plant that is especially invasive, poisonous, or otherwise more than just a nuisance. In Thurston County, the most common noxious weeds include Scotch broom, tansy ragwort, poison hemlock, and knotweed. If you have a Class A noxious weed on your property you are required to control it and prevent it from spreading. Tansey Ragwort and Poison Hemlock are examples of Class A Noxious weeds.

Tips on weed management

- ◆ Maintain healthy pastures. Nature hates a vacuum, bare ground will soon have something growing there. And it generally won't be what you want.
- ◆ Plant only certified weed-free grass and legume seed.
- ◆ If you drive through weedy areas, check your vehicle including the radiator and undercarriage, for seeds and weeds. Remove them before you leave.
- ◆ Monitor your property, and respond quickly if you find undesired plants.
- ◆ Don't pick and transport unidentified plants, as they may be undesirables.
- ◆ Work with your neighbors to keep the soil covered with desirable plants.

If you have any questions regarding weed management, contact Thurston Conservation District. In addition, you can get information and help with noxious weeds on your property from the Noxious Weed Control Agency at 360.786.5576.

Livestock Farming in Thurston County

Many different species of livestock are currently being raised in Thurston County. In addition to the usual species such as horses, cattle and poultry, you can also find such unusual ones as bison and alpaca. The WSU Extension Service has many resources available to aid people interested in livestock production. These include bulletins on livestock management, health, housing, pasturage and other information. Local veterinarians are an excellent source of information, as is Thurston Conservation District.

Horses

The horse industry is thriving in Thurston County. Many people own, breed, and sell horses, as well as recreate and compete with them. People purchasing horses for the first time should seek the advice of competent horsemen as well as veterinarians. They should learn the care and costs of keeping horses before they purchase. Horses need pasture during the growing season and winter feed during the off-season. Winter feed is generally hay. Good pasture management can provide your horses with grazing for about seven months out of the year in our area. If your pastures are in poor condition, your horses will need supplemental feeds such as hay and grain. *Contact Thurston Conservation District for information on how to properly manage your pastures and appropriate livestock densities.*

Horses require regular hoof maintenance. This service is provided by a 'farrier'. Horses need daily care, feeding, clean fresh water, and supplemental minerals and salt. During freezing weather, one should check their horse's water supply daily to be sure it has not frozen.

All riders and drivers need to be alert and considerate when traveling on county roads. A rider is considered a pedestrian. Safety for both the horseman and motorists should be of the highest priority when on public roads.

Cattle

Beef cattle have been, and are still, commonly kept in Thurston County. Recently, the number and size of "commercial" beef cattle operations has decreased. However, there has been an increase in the number of smaller acreages with smaller herds. Some landowners have breeding cattle and sell the offspring every year, while others run yearlings or 'stocker' cattle as a way of harvesting pasture during the growing season.

Due to our wet western Washington weather, livestock need to be confined in well-surfaced holding areas during the rainy months. Grazing saturated pastures with forage species will cause damage to your pastures and requires years to correct. Livestock managers need to provide for animal handling and care by constructing appropriate corrals and chutes.

Cattle need a daily source of clean, fresh water and usually need supplemental minerals and salt. Provisions for these needs should be included in the landowner's planning.

All livestock need a daily source of clean, fresh water and most require supplemental minerals and salt. Provisions for these needs should be included in the landowner's planning. Likewise, careful consideration should be taken in establishing pastures and livestock keeping areas in order to protect natural resources.

The dairy industry in Thurston County has long been an important part of the area economy. Dairy numbers have decreased dramatically in recent years; however, animal numbers have remained constant. Dairies in Thurston County tend to be confinement operations with feed hauled to the livestock. Truck traffic, delivering feed, and milk pickup are all normal activities associated with dairies. Dairy cattle produce a lot of manure. It must be collected, transported, and applied at agronomic rates to crop and forage fields. There are smells associated with these activities that may be unpleasant, not only to the dairyman, but also to the neighbors.

Poultry

Commercial poultry operations producing both eggs and fryer chickens are present in Thurston County. These operations are often fairly large industrial sites, and have significant amounts of truck and laborer traffic associated with them. Trucks hauling feed to the sites, and removing eggs, birds, and manure from the sites are often on the road late at night or early in the morning. Poultry manure is commonly used as a fertilizer on pasture and field crops in the area. While this material is a very good plant nutrient source, it also has objectionable odors associated with its use.

Remember: Thurston County has a "Right-To-Farm" ordinance that allows for appropriate farming practices and associated sights, sounds, traffic and odors. Whether or not you own livestock or produce crops, remember a farming operation is one way a rural lifestyle is preserved. Farming is essential for our livelihood.



Aquaculture in Thurston County

“Few natural resources provide a more fitting symbol of a region’s heritage and environment than Washington’s rich shellfish resources” (Puget Sound Partnership).

Thurston County is the heart of the oyster’s kingdom, shared with other bivalves such as the giant geoduck (pronounced “gooey-duck”) and other clams. Cultural and environmental icons to our regional history, shellfish are also important commercially. If you own a beach property, you can grow your own shellfish. This involves the direct use and management of the shoreline environment that is different from the more common dry land farming. You will need to acquire several licenses before you begin raising shellfish. For more information, please contact the WA State Department of Health, Shellfish Program at 360.236.3330.

Because adequate water quality is of such importance to shellfish and the health of the consumer, there are times when beaches and beds are closed to shellfish harvesting. In 2001 shellfish harvest closures and downgrades due to poor water quality resulted in the formation of the Shellfish Protection District. The Shellfish Protection District encompasses the Henderson Inlet and the Nisqually Reach. For more information, visit the Shellfish District Protection website at: www.co.thurston.wa.us/shellfish.

The Puget Sound Restoration Fund supports the Henderson Inlet Community Shellfish Farm, whose purpose is to educate the public about shellfish production. It relies on community volunteers to plant, harvest and help market the shellfish produced there. In addition, shellfish can be purchased for consumption. For more information about this farm, please contact the Restoration Fund at 206.780.6947 or go their website at: www.restorationfund.org/projects/csf/hendersoninlet.

Should you desire to harvest shellfish for your own personal consumption, be aware that most shellfish beds are privately or tribally owned. Do not harvest on privately owned beds without the owner’s permission and always check to see if warning signs have been posted forbidding harvest. Sometimes, due to polluted water, shellfish can be contaminated with biotoxins that are harmless to the bivalve but lethal to humans.

Most of the information above was provided by the Puget Sound Action Team’s (2003) publication, “An Abundance of Riches: Enjoying and Preserving Washington’s Shellfish Resources.”



Organic and Specialty Farms

Organic farming is a method of producing food which utilizes no pesticides, commercial fertilizers, antibiotics, or growth hormones. Consumers appreciate social and environmental benefits that can potentially come with organic farming, therefore there are many Thurston County farmers who are raising their crops organically these days. The proof can be found in Olympia's Farmer's Market, where many small-scale farm operators sell their produce. Research, statistics, and networking for organic production in WA state are available through WA State University's Center for Sustaining Agriculture & Natural Resources, at: [csanr.wsu.edu/pages/Organic Statistics](http://csanr.wsu.edu/pages/Organic%20Statistics).

Certified organic food has been grown without the use of genetically engineered seeds or plants; sewage sludge, irradiated materials, synthetic fertilizers, insecticides or herbicides. Organic livestock must be fed 100% organic feed, kept on organically raised forage/pasture, allowed outdoor access, and never given antibiotics.

In order to sell produce as 'organic', the grower must be certified. One must make several commitments not normally required of conventionally farmed produce. The certification process is relatively simple, but involves a considerable amount of paperwork to ensure organic integrity. A farm is certified through the WA Department of Agriculture or a private certifier who is licensed by the National Organic Program. Prohibited substances, such as synthetic fertilizers, insecticides and herbicides must not have been applied to the land for three full years preceding the harvest of the first organic crop.

There are many specialty farms in Thurston County. In some cases, the farmer specializes in one specific crop, for instance, blueberries, sweet corn, or eggs. In other cases farmers specialize in diversified vegetable crops where consumers can purchase a CSA share, or Community Supported Agriculture. This is an arrangement between farmer and consumer, where the consumer pays the farmer a flat fee prior to the start of the season, assumes the same risks as the farmer and receives fresh, seasonal farm products at agreed upon intervals. *Please contact the Thurston Conservation District for a list of CSAs in our county.*

The Department of Agriculture also provides many resources for small, specialty, or organic farmers in Washington State. One of these resources is the "*Small Farm & Direct Marketing Handbook*", which discusses subjects such as networking, marketing, farm specific business management, and regulations. This handbook can be found at TCD, as well as at: agr.wa.gov/Marketing/SmallFarm/directmarketinghandbook.aspx.

This publication is inadequate for fully describing the certification process. More information can be gained by accessing the Washington State Department of Agriculture's website at: <http://www.agr.wa.gov/FoodAnimal/organic>.

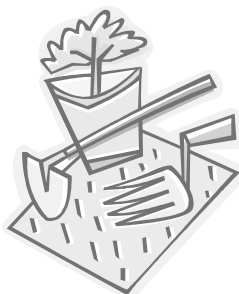
Gardening in Thurston County

Gardening is a responsible way to use your land. Produce that is healthy, fresh and tasty can be easily grown in Thurston County. Added benefits include exercise, stress relief, a feeling of connection to the land, and a re-learning of how natural resources, landscapes, wildlife and humans operate together. Common garden frustrations can be kept to a minimum by learning what grows best in our county. This information is available from the Master Gardeners at the WSU Extension Office. (See *Resources section*)

Due to varying soil types, terrain features, and climatic conditions, Thurston County should be considered a collection of microclimates. Therefore, if you plant in accordance with the guidelines for Zones 7 or 8, you should have success. Our soils are generally acidic and well draining. Due to our cool summer nights, heat loving crops like tomatoes and corn can be disappointing. But cool crops, like spinach and broccoli do very well. Garlic and asparagus also love our climate. Flowers like rhododendrons and azaleas, and berry crops like strawberries and blueberries flourish.

The Certified Crop Advisors at TCD can advise you on what crops grow best here. We can test your soil to see what amendments, if any, need to be made. While many people avoid the use of herbicides, our staff is fully trained on and can advise you on their proper and timely application. *Call us when you have questions regarding garden design and placement. We can help you manage your garden wisely and for optimum results.*

Downtown Olympia hosts the Farmer's Market. It is open year round from 10 AM to 3 PM April-October Thursdays through Sundays, Jan-March, Sat. only, Nov and Dec. Sat and Sunday . There you can buy fresh, locally grown vegetables as well as out-of-county produce such as Yakima sweet corn, Walla Walla onions, and Othello apples. You can also buy fresh salmon in season and shellfish farmed right here in Thurston County. Many organic farmers sell their produce in the Market, including organically raised meat and eggs. Specialty farmers, those who produce one or only a few things such as garlic, honey, or raspberries, also sell at the Market. Fresh cut flowers, plant starts and flower baskets are always available. A Master Gardener is on hand, while the Market is open, to answer any questions you have regarding farming, gardening or horticulture.



Forest Products

Huckleberries

One of the most popular summertime activities is picking huckleberries. They grow best in older clear cuts, but can also be found growing under trees. The berries begin to ripen in August, depending on the elevation and weather. Huckleberries may be harvested in national forest or state-trust lands for personal consumption without a permit. *Individuals planning on selling berries need to obtain a permit from the Washington Department of Natural Resources by calling 360.902.1000.*

Mushrooms

Many wild, edible mushrooms can be found throughout Thurston County. Morels are one of the most abundant mushrooms found. While edible, some people may have an adverse reaction to morels, especially when consumed with alcohol. Always consult an experienced mushroom harvester for correct identification before you eat any wild mushroom. *Individuals planning to transport mushrooms need to obtain a permit from the Washington Department of Natural Resources by calling 360.902.1000.*

Firewood

Firewood may be cut from designated areas on national forest or state-trust land, however, a permit is required. Each household may cut up to 10 cords of wood per year on national forest lands and up to 6 cords on state-trust lands. A cord of wood is a pile 4 feet high by 4 feet wide by 8 feet long, or 128 cubic feet. Caution: Western larch and various hardwood species found in our area shed their leaves in the fall but are still alive. Also, during the fire season (generally May-October), fire precaution restrictions may be in effect. *Be sure to check with the local ranger station or the Department of Natural Resources office for any restrictions that may apply.*

Hunting

Hunting is legal in the county, but the scope of this publication is too limited to cover all the regulations. Thurston County ordinances have closed certain areas within the County to shooting. *Please contact Thurston County for the location of those areas at: www.co.thurston.wa.us. Contact the Department of Fish and Wildlife at 360.902.2200 or online at: www.wdfw.wa.gov for hunting licenses, laws, regulations, and restrictions.*

Christmas Trees

It is illegal to cut Christmas trees on state-trust land or on privately owned land without permission. However, with a permit, Christmas trees may be cut from national forest lands. Certain rules must be followed in order to preserve the scenic values and conservation of forest resources. *For more information, or to obtain a permit, contact a National Forest Ranger station.*

Growing a Healthy Forest

Many people are unaware that, given the right acreage, you can own a forest, and make a living with it. Forests and their little siblings, Christmas tree farms, do well in Thurston County soils and climatic conditions. There are many things one needs to keep in mind when one is making forestry a business.

- ◆ Maintain a diversity of tree species (unless you're growing Christmas trees)
- ◆ Reduce loss of trees to problem insects and disease by thinning the forest to allow more light, rain, and nutrients to reach the remaining trees
- ◆ Thin trees to improve their growth, health, and vigor. Thinning will also increase forage for livestock and wildlife. Leave the largest and healthiest trees as seed stock for future trees.
- ◆ Avoid continuous livestock grazing that can compact soils and damage trees by rubbing or browsing them
- ◆ Locate access roads away from streams, construct adequate drainage, and re-seed cut slopes to reduce erosion, pollution and weed infestations
- ◆ Scatter heavy accumulations of downed woody material to reduce the fire hazard. Leave snags (standing dead trees), larger logs, and a few brush piles for wildlife habitat and forest nutrient cycling
- ◆ When spraying herbicides on weeds, take care to protect the trees
- ◆ When planting trees, select species adapted to your soil and climate at your particular site. Care for new trees by removing competing vegetation in a 2-foot diameter around the trunk. Prevent browsing by animals.
- ◆ Seek professional advice when planning a timber sale, handling the various required permits, and insuring the remaining stand is in good health when the harvest is over.

Managing a forest is complex, but there are many sources of information and advice.

Private forestry consultants can help you conduct inventories, set up timber sales and help you achieve your forest management goals. Some consultants have multi-resource specialists on staff. They are usually well versed in federal and state cost-share programs, laws and regulations.

A directory of consultants is available from TCD, the Washington Department of Natural Resources (DNR), and from the WSU Extension office.

DNR's Small Forest Landowner Office administers the Forestry Riparian Easement Program. It issues cutting permits and provides technical advice when streams or rivers are present in the forest. It can assist landowners in understanding how the Forest Practices Act affects forestland owners.

In addition, the Forest Stewardship Program assists non-industrial, private forest owners in managing their properties. For more information, call DNR's Small Forest Landowner office at 360.902.1415.

Small forest landowners can also receive valuable information from the Washington Farm Forestry Association. Their mission is to protect the economic viability of small forest landowners, while providing forest resource benefits such as clean water, clean air, and fish and wildlife habitat. Contact the South Sound chapter at 360.438.1166, or online at: www.wafarmforestry.com.

If you have questions regarding managing your forest, Thurston Conservation District can both advise you on aspects of it as well as direct you to applicable agencies.

Christmas Tree Production

Many people in the county grow Christmas trees. Science, technology and selective breeding have turned what once was a small, part-time hobby into a highly profitable business. Christmas trees can be grown on land that is unsuitable for other crops, making marginal land profitable.

As with any agricultural endeavor, Christmas tree culture is a full time job. The trees require planting, pruning, fertilizing and harvesting. The trees must be fresh when they reach the marketplace, so many growers harvest with helicopters to transport sling loads of trees to refrigerated vans, which then transport to market. However, many tree growers also operate as a "You Cut" operation. This is an enjoyable holiday tradition for families with small children. Many "You Cut" operators turn their business into a seasonal occasion, with free hot cocoa or cider and horse-drawn hayrides. Most offer the free use of saws, transport of a cut tree to and proper loading on the buyer's vehicle. In addition, some farmers are now allowing people to 'adopt' a Christmas tree, where someone chooses next year's tree and visits it throughout the year to check on its progress.

Washington State is the third largest producer of Christmas trees, behind only Oregon and North Carolina. In 2004, the crop value for Washington trees was \$51 million dollars, with the Douglas fir being the most preferred species. A Douglas fir tree, managed and cared for the tree market, will take only 7 years to grow to marketable size.

More information can be had by contacting the Northwest Christmas Tree Association at the: www.nwtrees.com.

Backyard Wildlife

One of the reasons many people prefer living in rural areas is because one is so close to wildlife. Coyotes, black bears, elk and deer are all found in Thurston County. It is a wonderful thing to go out on your back porch and listen to the morning ringing with birdsong. Hearing coyotes singing in the middle of the night is a thrill that city dwellers seldom enjoy. Sometimes, the silence of the countryside is the most precious aspect of all.

As a landowner, you are not required to provide habitat for wildlife, but it is not difficult to do so, even with small or unusually shaped acreages. Simple actions, like fencing off a portion of marginal land and allowing it to 'go wild' provides habitat for reptiles, small mammals and birds. Allowing dead trees to remain standing is an irreplaceable habitat that provides food and homes for a wealth of animals. A brush pile can serve as excellent cover for rabbits, quail, and other animals. Leaving native trees in place, like our native Oregon or white oak, provides food, cover and habitat for squirrels, raptors, and songbirds. A couple of bat houses set up near your home may attract bats that will repay you by eating tremendous numbers of insects that annoy and stress your livestock. Barn swallows nesting in your barn will do the same.

If your property was previously farmed or is currently in use, and you would like to restore part of it to attract wildlife, please call Thurston Conservation District. Our habitat technicians can develop a restoration plan for you that will create a diverse and balanced haven for wildlife or improve one that is already there. They can identify plants, shrubs and trees for you and provide assistance in dealing with and attracting wildlife. In addition, we can advise you on the selection of native plants through our annual Native Plant Sale.



Outdoor Recreation

Thurston County offers a wide variety of places and a temperate climate that allows one to play the year round. The types of recreation are almost endless, from scuba diving in the Puget Sound to backpacking in the Black Hills.

Parks

Frye Cove Park is used often for weddings due to its scenic views of Eld Inlet and Mt. Rainier. It offers 1,400 feet of saltwater beach where one can harvest shellfish.

One can walk from the Farmer's Market in downtown Olympia to Priest Point Park. Its 240 acres encircle a cove on Budd Inlet that looks very much as it did when it was settled in 1848. Here you can see enormous trees and walk the beach where Native Americans held potlatches.

Mima Mounds State Park is a handicapped accessible park showcasing the prairies that used to cover the county. The eponymous mounds seen there are geological oddities that stimulate many different theories of their formation.

Millersylvania State Park is open for camping year round. Sitting by a campfire beneath tall firs, you may be able to hear wolves howling from the nearby non-profit that protects and advocates for wolf conservation, Wolf Haven International. Several private RV parks in the county cater to self-contained and other types of trailers or campers.

Nisqually National Wildlife Refuge offers a unique blend of freshwater marshes and brackish marine estuary and is handicapped accessible. It also offers a hiking trail. During the hunting season, a portion of Nisqually is open for duck and goose hunting.

Thurston County has five rivers and a number of lakes, all of which offer good fishing. Please check with the Fish and Wildlife Department for fishing licenses, permits, regulations and restrictions. The Black River is popular for canoeing and kayaking, as is South Puget Sound. The Sound is also a popular scuba diving area and is home to the largest octopus species in the world.

Some tidal flats of the Sound are open for shellfish harvesting. Contact the Department of Fish and Wildlife for harvesting permits, regulations and restrictions. *Always check to see if beds are tribally or privately owned before you harvest.* Also, be aware that at times, the Health Department will close beds due to toxins or contaminants in the water or in the shellfish.

Telephone Numbers

Conservation

Thurston Conservation District	360.754.3588 www.thurstoncd.com
Natural Resource Conservation Svc (Federal)	360.704.7750 www.wa.nrcs.usda.gov

Federal Agencies

Environmental Protection Agency Washington Operations Office	206.553.1200 www.epa.gov/region10/
National Marine Fisheries Service Northwest Regional Office	206.526.6150 www.nmfs.noaa.gov
Olympic National Forest	360.956.2402 www.fs.fed.us/r6/olympic
US Army Corps of Engineers	206.764.3742 www.nws.usace.army.mil/
US Fish and Wildlife Service Pacific Northwest Region	503.231.6118 www.fws.gov/pacific/

State Agencies

Agriculture, Department of	360.902.1800 www.agr.wa.gov/
Auditor, Office of the State	360.902.0370 www.sao.wa.gov
Commerce, Department of	360.725.4000 www.commerce.wa.gov
Ecology, Department of Southwest Regional Office	360.407.6300 www.ecy.wa.gov
Fish and Wildlife, Department of	360.902.2200 www.wdfw.wa.gov/
Fishing hotline	360.902.2500
Shellfish hotline	866.880.5431

State Agencies (Continued)

Health, Department of Biotoxin hotline	800.525.0127 www.doh.wa.gov 800.562.5632
Natural Resources, Dept. of South Puget Sound Region Small Forest Landowner Office	360.902.1200 www.dnr.wa.gov 360.825.1631 360.902.1415
Olympic Region Clean Air Agency	360.539.7610 www.orcaa.org
Puget Sound Partnership	360.464.1242 www.psp.wa.gov
Transportation, Department of	360.705.7000 www.wsdot.wa.gov
WA State Conservation Commission	360.407.6200 www.scc.wa.gov
WA State Parks and Recreation	360.902.8844 www.parks.wa.gov

County Agencies

Assessors Office	360.867.2200 www.co.thurston.wa.us/assessor/
GeoData Center	360.754.4594 www.geodata.org
HAZOHouse FREE Household Hazardous Waste Disposal	360.867.2912
Noxious Weed Control Agency	360.786.5576 www.co.thurston.wa.us/tcweeds
Planning Department Shellfish Protection District	360.786.5490 www.co.thurston.wa.us/planning/ www.co.thurston.wa.us/shellfish

County Agencies (Continued)

Thurston Co. Parks & Recreation	360.786.5595 www.co.thurston.wa.us/parks/
Thurston Co. Public Health & Soc. Services Environmental Health	360.867.2500 360.867.2673 www.co.thurston.wa.us/health/
Thurston Co. Public Works	360.867.2300 www.co.thurston.wa.us/publicworks/
Thurston Co. Solid Waste Program	360.867.2491 www.co.thurston.wa.us/solidwaste/
Washington State University Thurston Co. Extension	360.867.2151 http://county.wsu.edu/thurston

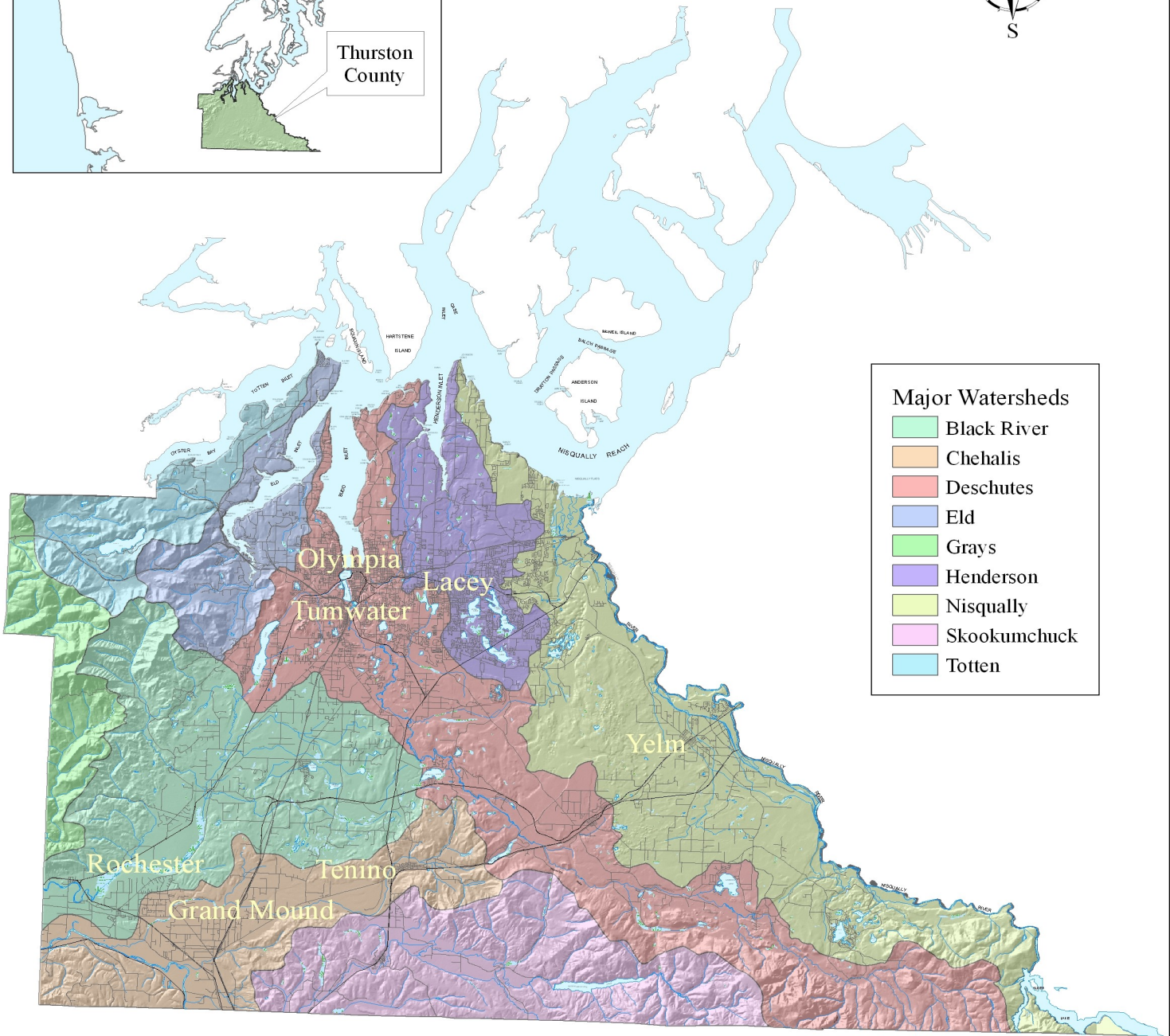
Tribes

Chehalis	360.273.5911 www.chehalis tribe.org
Nisqually	360.456.5221 www.nisqually-nsn.gov
Squaxin Island	360.426.7780 www.squaxin island.org

Other Relevant Numbers

Buried Cable Location Service	800.424.5555
CenturyLink -	800.526.3557 www.centurylink.com
Developer Contact Group - Option 1 New Residential Service Request - Option 4	
Puget Sound Energy Customer Construction Service	888.225.5773 888.321.7779 www.pse.com

THURSTON COUNTY MAJOR WATERSHEDS



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0 2 4 8 12 16 Miles

Projection: Lambert Conformal Conic
(WA State Plane South Zone)
Datum: NAD 83; Units: Feet

Cartography by: Mike Kuttel, Jr.
(Thurston Conservation District) June 16, 2005
File name: thurston_co_watersheds.mxd

