Chelan County
Shoreline Master Program User Guide

January 2022

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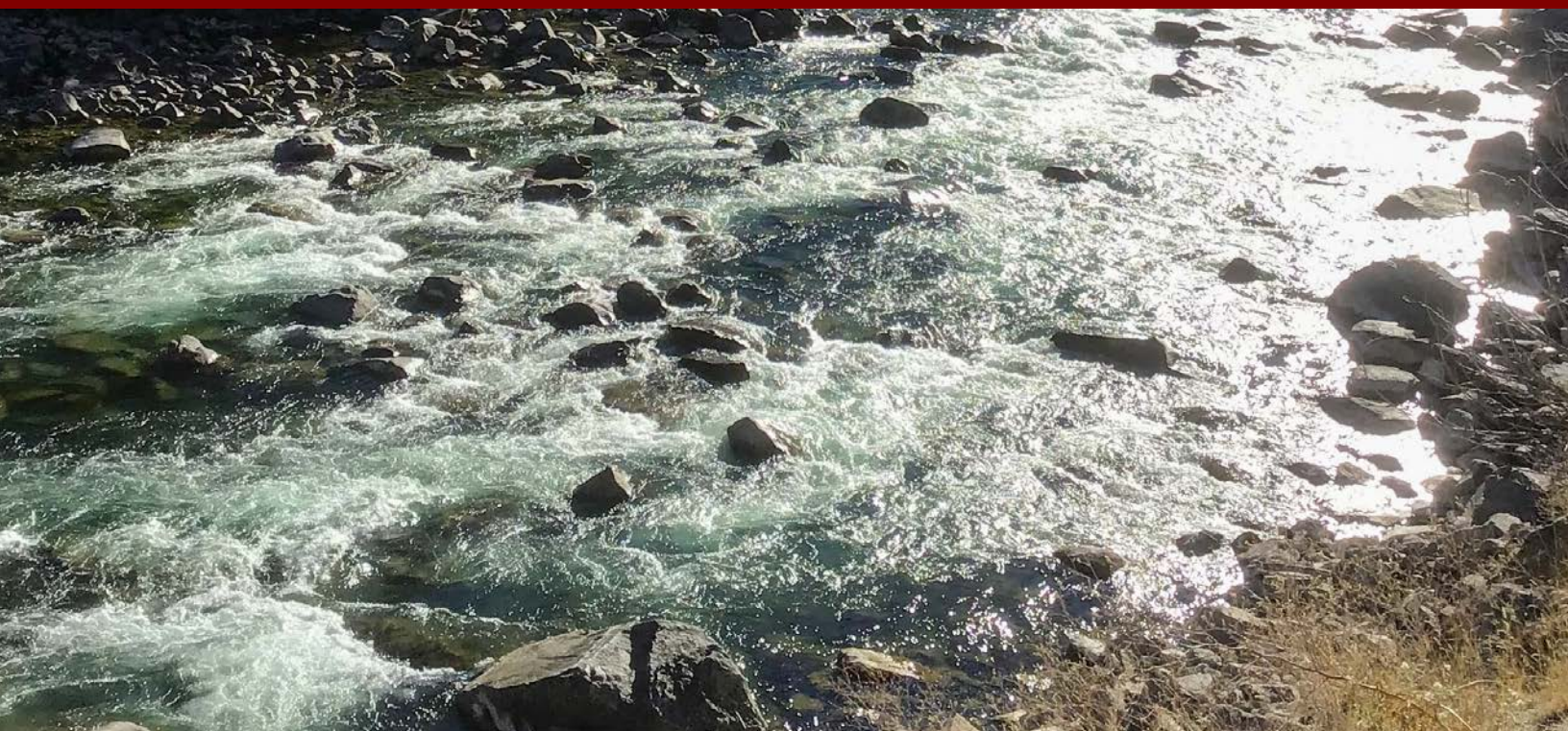

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1 Shoreline Master Program Overview

Washington state residents passed the Shoreline Management Act (SMA) in 1972. Voters recognized that the state's shorelines are valuable natural resources, and they were concerned about ensuring the responsible use and development of these areas. The SMA strives to balance responsible shoreline use and development, environmental protection, and public access. Like other cities and counties in the state, Chelan County administers the SMA through its own local Shoreline Master Program.

If you own property near the water in Chelan County, you should be aware of the requirements in the County's Shoreline Master Program. Permits are required for many types of construction and other uses on shoreline properties. This User Guide answers some of the most common questions that landowners ask about their property and the shoreline permitting process.

This User Guide is a summary only. Be sure to reference the complete Chelan County Shoreline Master Program for full details and requirements. The Shoreline Master Program webpage is maintained by Chelan County and is available here:

https://www.co.chelan.wa.us/community-development/pages/shoreline-master-program

2 Frequently Asked Questions

What is a Shoreline Master Program and Why Does Chelan County Have One?

Local governments including Chelan County are required to prepare Shoreline Master Programs (or SMPs) based on state laws and rules. The SMP is a combination of planning documents and regulations that guide shoreline development and uses. Key goals of the SMP are to balance environmental protection, public access, and water-oriented uses while achieving "no net loss of shoreline ecological functions."

What Are Ecological Functions?

Shoreline ecological functions are processes that happen in the shoreline environment that sustain habitat for fish and wildlife, protect water quality, and maintain flows in streams. For example, when large pieces of wood fall into a stream, they provide refuge and feeding habitat for fish; if we remove trees along a stream, that process can be interrupted. Or, when water flows through a wetland before entering a lake, the plants in the wetland help remove sediment and other pollutants; if the wetland is cleared or filled, that water cleaning function is lost. Shorelines are an important place where these ecological processes and functions happen.

Do I Need a Shoreline Permit for My Project?

In general, shoreline permits are required for new development, expansion of existing structures, and allowed uses. Minor repairs and maintenance typically don't require a shoreline permit or may qualify for an exemption. For example, you don't need a permit to put a new roof on an existing house or to remodel the interior, but you do need a permit to build a new dock, or an exemption if you want to replace an existing dock. Clearing of vegetation from a shoreline can also require a permit. If you propose to impact a shoreline, mitigation will likely be required to demonstrate that the proposed action can be completed while demonstrating no net loss of shoreline ecological functions.

The SMP is specific about what activities need a permit, so if your property is near a regulated waterbody be sure to understand the rules and get all required permits before you act. Section 3.6 of the SMP provides a comprehensive list of allowed uses within the shoreline environment.

Does the Shoreline Master Program Apply to My Property?

The SMP applies if your property is within an area regulated by the state Shoreline Management Act. This includes only certain types of waterbodies and the lands near them. In technical terms, the Shoreline Management Act applies to streams with a mean annual flow greater than 20 cubic feet per second, lakes 20 acres in size or larger, and certain wetlands associated with these waters. The Shoreline Management Act covers activities in these waters and on land within 200 feet from the edge of these waterbodies (or technically, 200 feet from the ordinary high water mark).

A list of waterbodies in Chelan County that are regulated under the Shoreline Management Act is provided in Tables 3.4-a and 3.4-b of the SMP. As of June 2021, the list includes 76 streams and rivers, and 57 lakes in Chelan County. The Official Shoreline Maps included as Appendix A of the SMP show the general boundaries of the regulated shorelines.

If you're applying for a shoreline permit, you may need to have the edge of the waterbody (called the "ordinary high water mark") and any wetlands on your property mapped by a qualified professional. This mapping is then used to determine where the 200-foot regulated shoreline area falls on the property. You'll need this information for shoreline permit applications.

What Is a Shoreline Environment Designation and How Do I Know Which One Applies to My Property?

Under Washington State law, local governments divide their regulated shorelines into different types, known as Shoreline Environment Designations. There are five different designations in Chelan County: Natural, Conservancy, Rural, Urban, and Aquatic. Designations act similar to a zoning designation but apply specifically to the shoreline environment. Each designation has its own purpose and reasons for being designated, which are described in Section 3.2 of the SMP.

For example, the Natural designation applies to shorelines that are ecologically intact and mostly undisturbed; these are areas where new uses such as commercial and industrial developments are not permitted. On the other hand, the Rural designation applies to agricultural lands and areas planned for residential development. The types of activities allowed and permits that are required depend on the designation that applies to the property.

You can find maps of designation boundaries in Appendix A of the SMP. The following tables are also important for applicants to review:

- *Table 3.6-a of the SMP lists the types of shoreline permits required for different activities in each designation.*
- *Table 3.7-a lists setbacks and height limits for each designation.*
- *Table 3.8-a lists buffers from the ordinary high water mark for each designation.*

3 Focus Topics

3.1 Docks and Other Structures on the Water

If you're proposing to build or expand a structure in or over the water, you will need a shoreline permit (as well as other local, state, and possibly federal permits). The SMP regulates the following types of structures:

- Marinas, docks, boat launches, watercraft lifts, swim floats, buoys, and moorage piles
- Breakwaters, jetties, groins, weirs, and barbs
- In-water structures for hydroelectric generation, irrigation, water supply, flood control, transportation, utilities, fish habitat enhancement, or other purposes
- Houseboats

The SMP includes standards for locating, designing, constructing, and operating these structures.

The following figures and Table 1 summarize and illustrate these standards.

These sections of the SMP Chapter 5 address structures in and over the water:

Section 5.5, Boating Facilities Regulations

Section 5.6, Breakwaters, Jetties, Groins, Weirs and Barbs Regulations

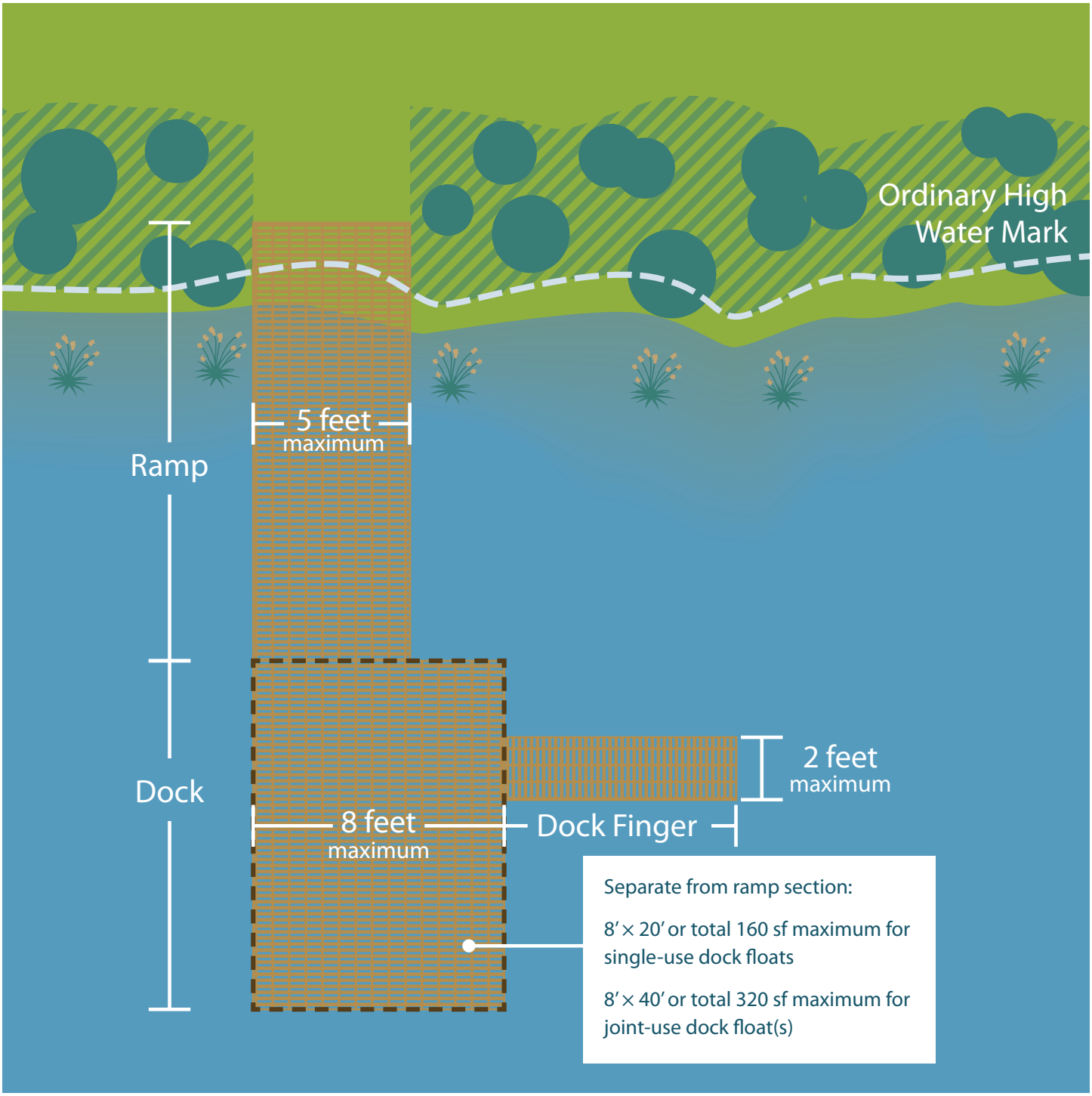
Section 5.12, In-Water Structure Regulations

Section 5.14, Private Moorage Facilities Regulations

Section 5.15, Recreational Regulations

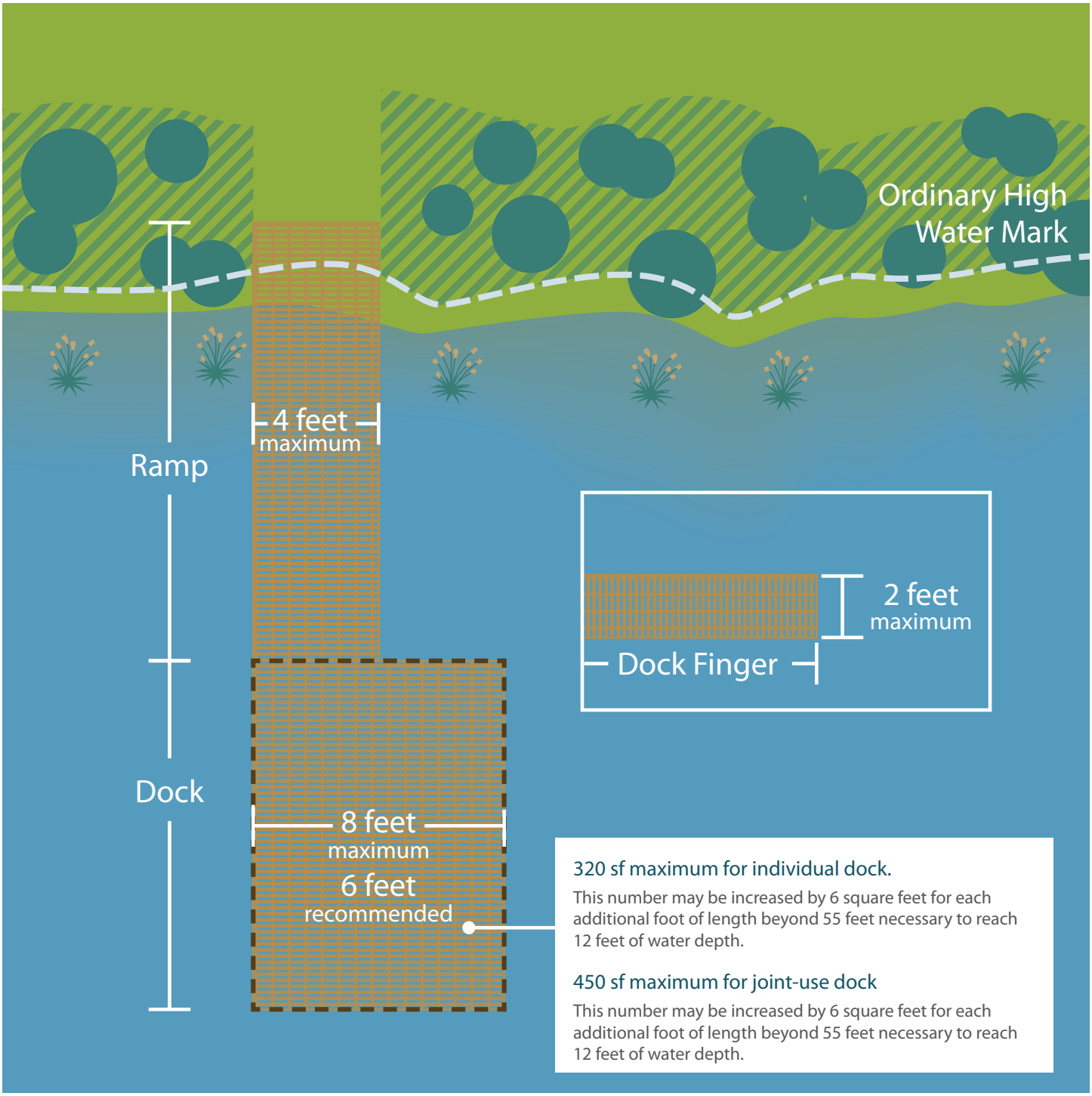
Table 5.14-a, Dimensional/Construction Standards for Docks

FIGURE 1.A: DOCKS SPECIFICATIONS FOR COLUMBIA RIVER



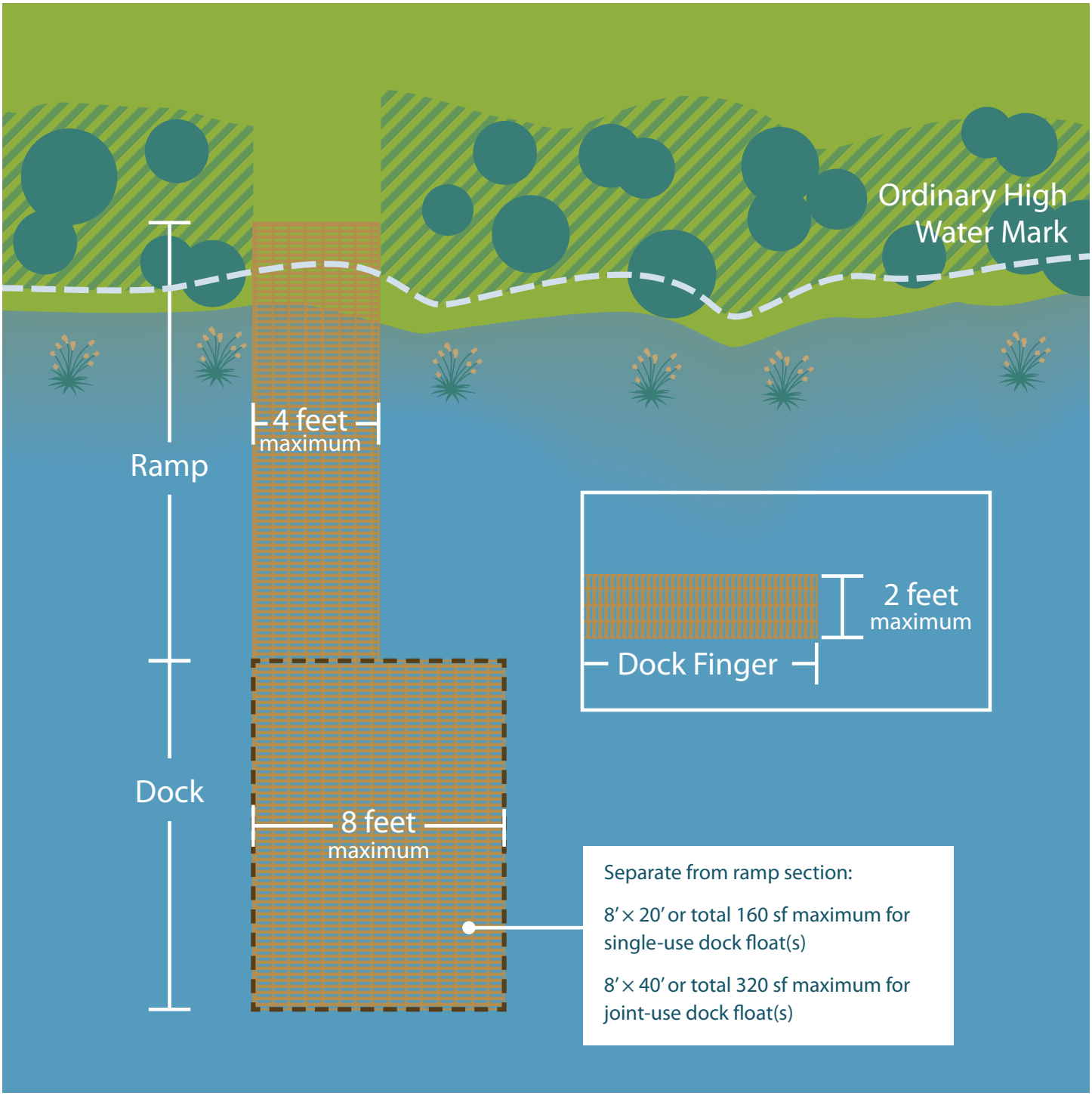
sf = square feet

FIGURE 1.B: DOCKS SPECIFICATIONS FOR LAKE CHELAN



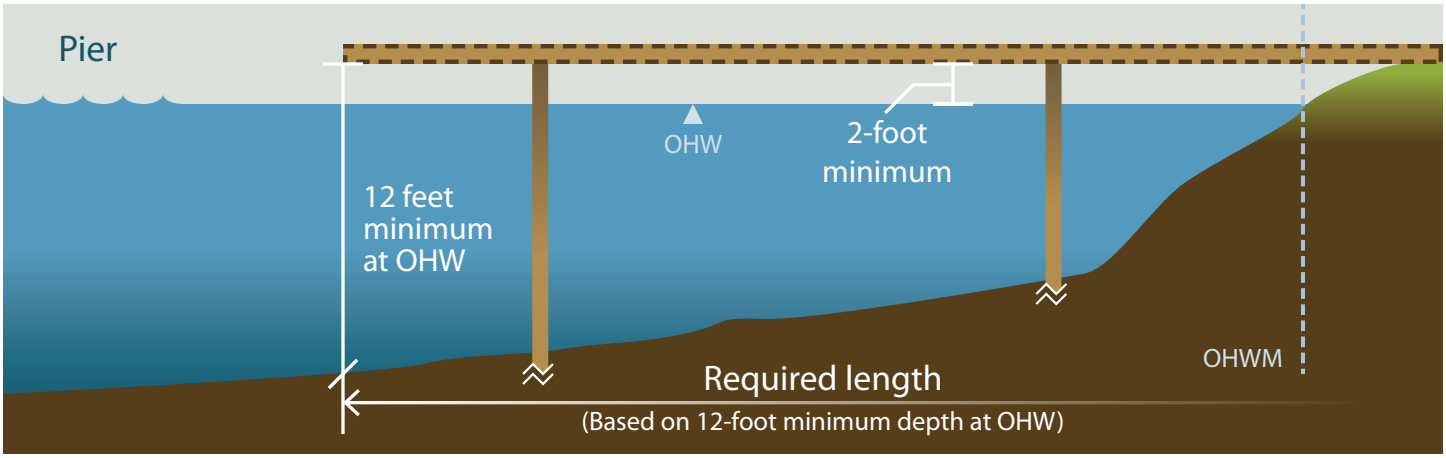
sf = square feet

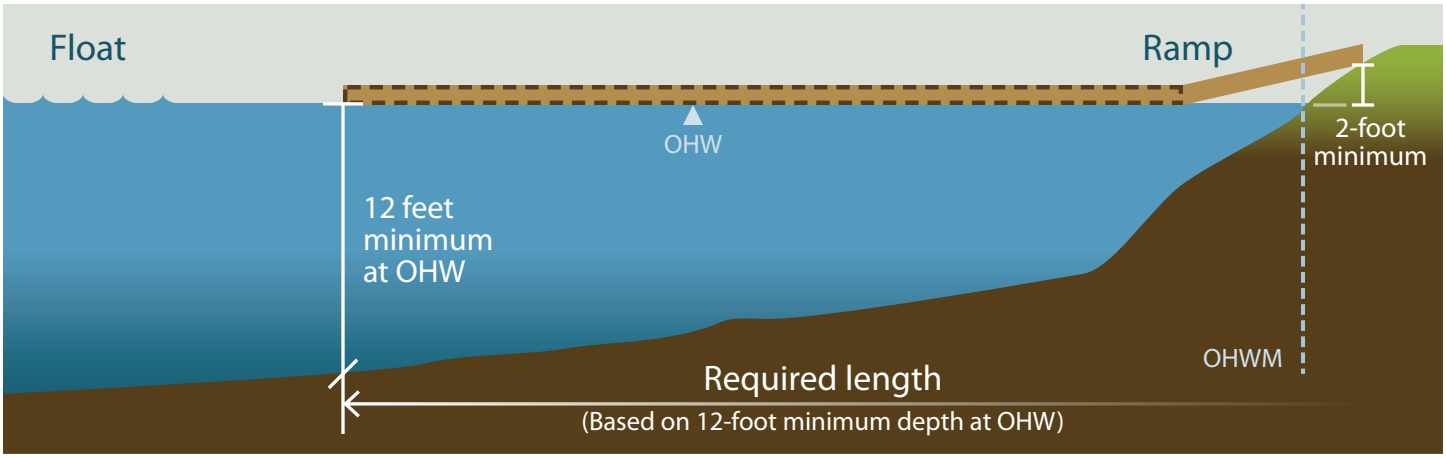
FIGURE 1.C: DOCKS SPECIFICATIONS FOR OTHER WATER BODIES



sf = square feet

FIGURE 2.A: DOCKS SPECIFICATIONS (PROFILE VIEW) FOR COLUMBIA RIVER

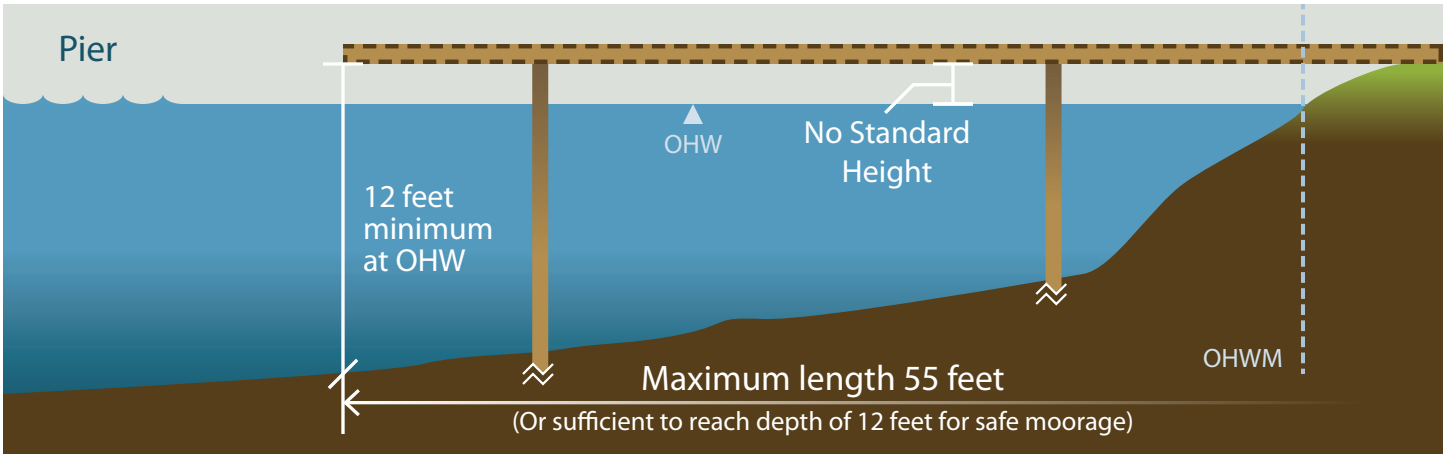


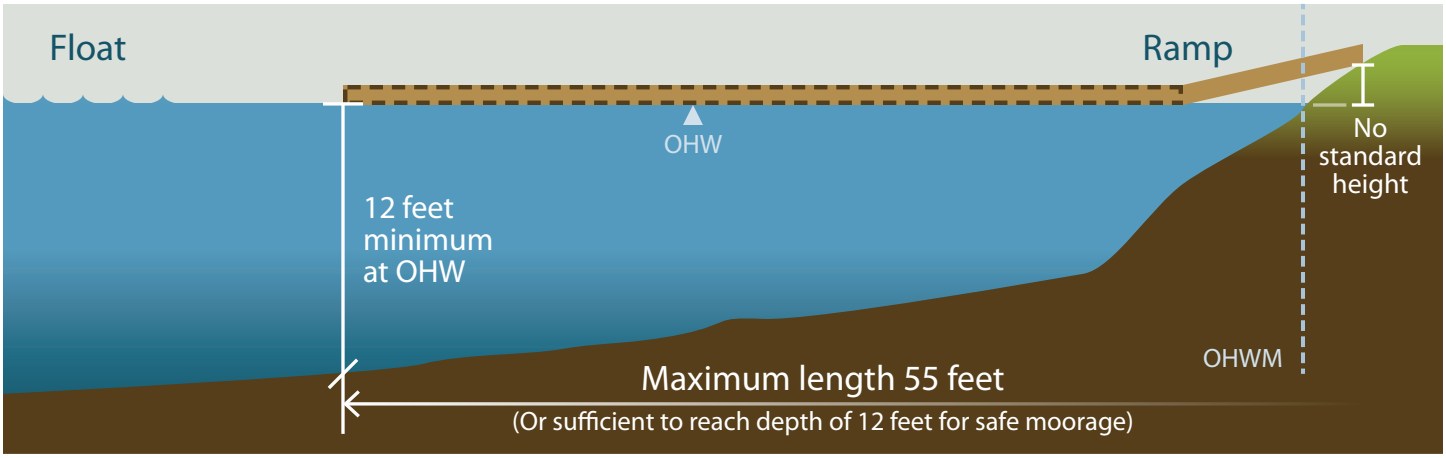


OHW = ordinary high water

OHWM = ordinary high water mark

FIGURE 2.B: DOCKS SPECIFICATIONS (PROFILE VIEW) FOR LAKE CHELAN

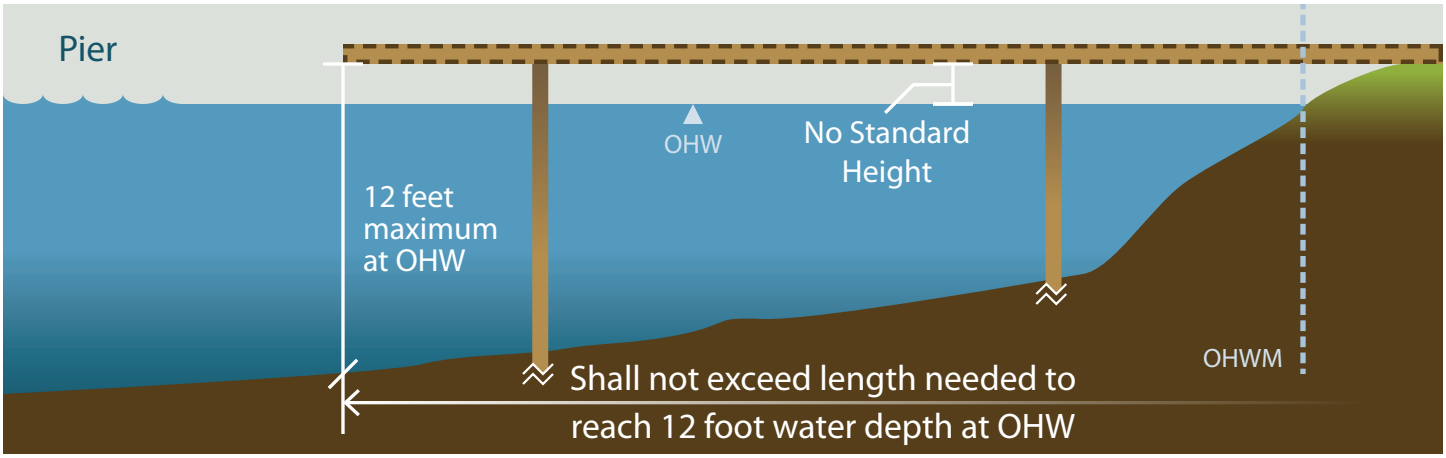


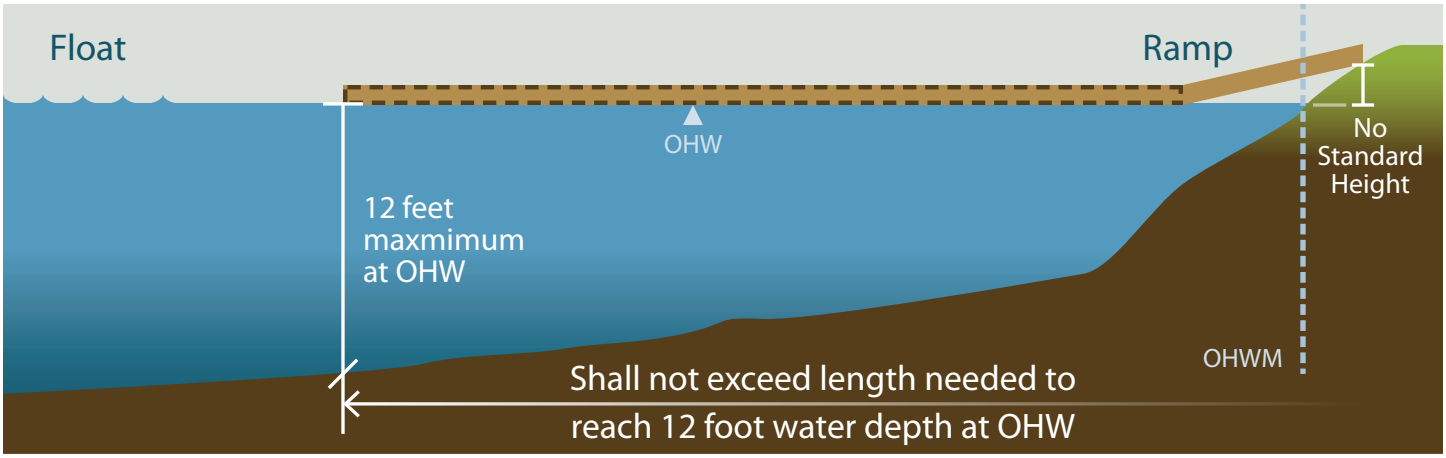


OHW = ordinary high water

OHWM = ordinary high water mark

FIGURE 2.C: DOCKS SPECIFICATIONS (PROFILE VIEW) FOR OTHER WATER BODIES





OHW = ordinary high water

OHWM = ordinary high water mark

TABLE 1

SMP Dimension Standards for Overwater Structures

Waterbody	Width	Length	Area	Height
Columbia River	Piers and ramps: Max. 5 feet Floats: Max. 8 feet Dock finger extensions: Max. 2 feet	Sufficient to extend out to water depth safe for boat moorage (min. 12 feet depth)	Single-use dock float: Max. 8 x 20 feet or a total of 160 square feet Joint-use dock float: Max. 8 x 40 feet or a total of 320 square feet (Standard does not include pier and/or ramp sections)	Bottom of any piers or the landward edge of any ramp: Min. 2 feet above OHWM
Lake Chelan	Piers and floats: Max. 8 feet (6 feet recommended) Ramps: Max. 4 feet Dock finger extensions: Max. 2 feet	Max. 55 feet or such that water depth is sufficient for safe boat moorage (min. 12 feet in depth)	Single-use dock: Max. 320 square feet Joint-use dock: Max. 450 square feet Total area may be increased by 6 square feet for each additional foot of length beyond 55 feet necessary to reach 12 feet of water depth	No standard
Other Waterbodies (Lakes)	Piers and floats: Max. 8 feet Ramps: Max. 4 feet Dock finger extensions: Max. 2 feet	Shall not exceed the length necessary in order for the end of dock to reach a water depth of 12 feet measured at OHW.	Single-use dock float: Max. 8 x 20 feet or a total of 160 square feet Joint-use dock float: Max. 8 x 40 feet or a total of 320 square feet (Standard does not include pier and/or ramp sections)	No standard

3.2 Shoreline Buffers and Setbacks

The land located next to a stream, river, or lake is important for protecting the waterbody from human disturbance and pollutants, and for providing valuable wildlife habitat. Property owners are required to protect an adjacent strip of land called a buffer or setback along the edge of waterbodies that are regulated under the SMP.

For waterbodies that are regulated under the SMP, the width of the buffer depends on the designation of the property, ranging from 50 to 150 feet wide (see Table 2). Buffers are measured horizontally from the edge of the waterbody (from the ordinary high water mark) outward toward the land. Because the buffers are intended to provide ecological protection, construction and certain uses within them are restricted. However, the SMP provides flexibility by allowing the standard buffers to be averaged or even reduced under specific circumstances (Figure 3). Buffer width modifications require County approval.

Shoreline buffers may also be reduced to accommodate new single-family residential development by applying a common line measurement for lots less than 100 feet wide (Figure 4.a, Figure 4.b).

These sections of the SMP address structures in and over the water:

Table 3.7-a, Shoreline Development Standards

Section 3.8, Shoreline Buffers

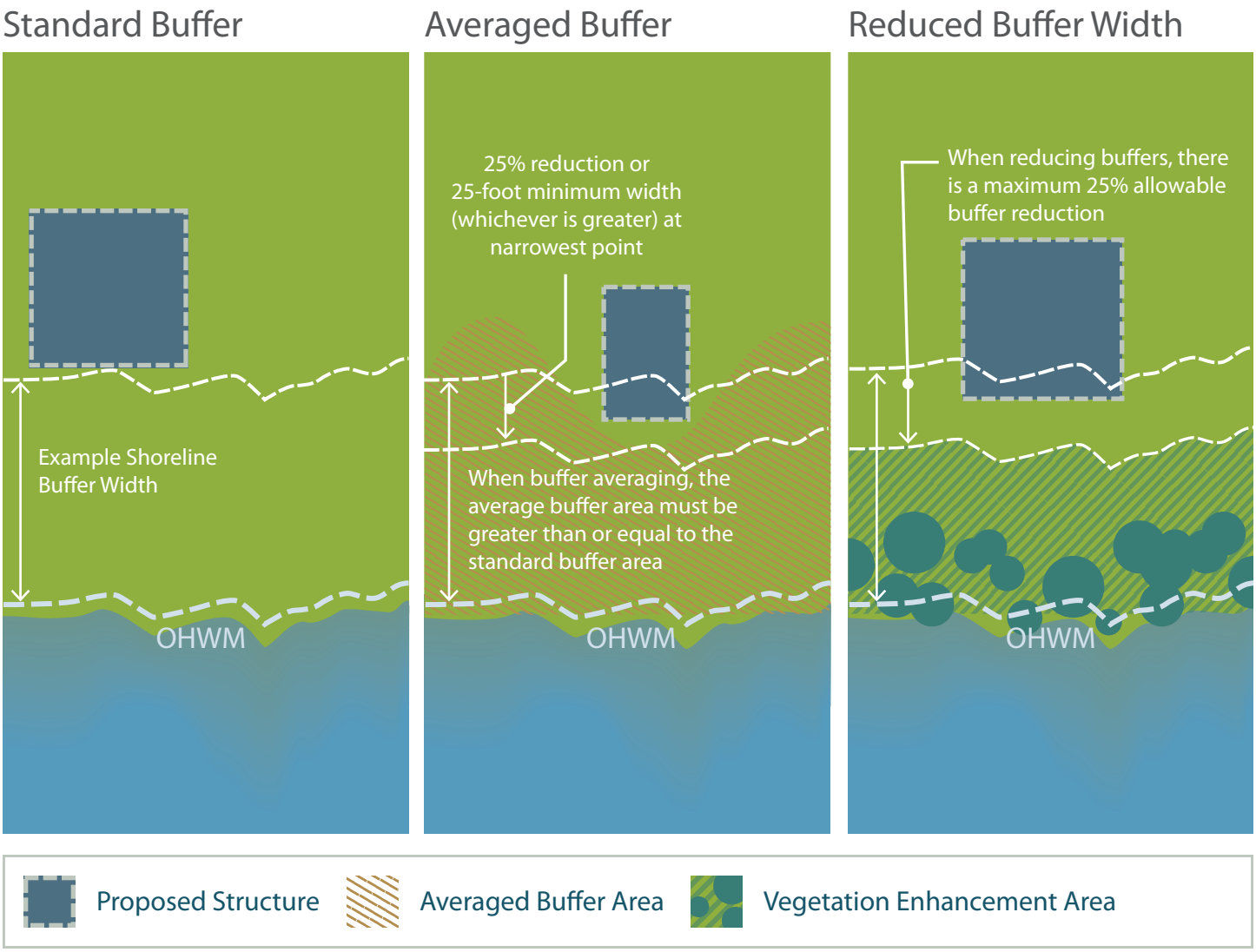
Table 3.8-a, Shoreline Buffers

TABLE 2

Shoreline Buffer Widths

Shoreline Designations	Buffer (feet)
Natural Environment	150
Conservancy Environment	100
Rural Environment	100
Urban Environment	50
Aquatic Environment	n/a
Lower Lake Chelan Basin	50

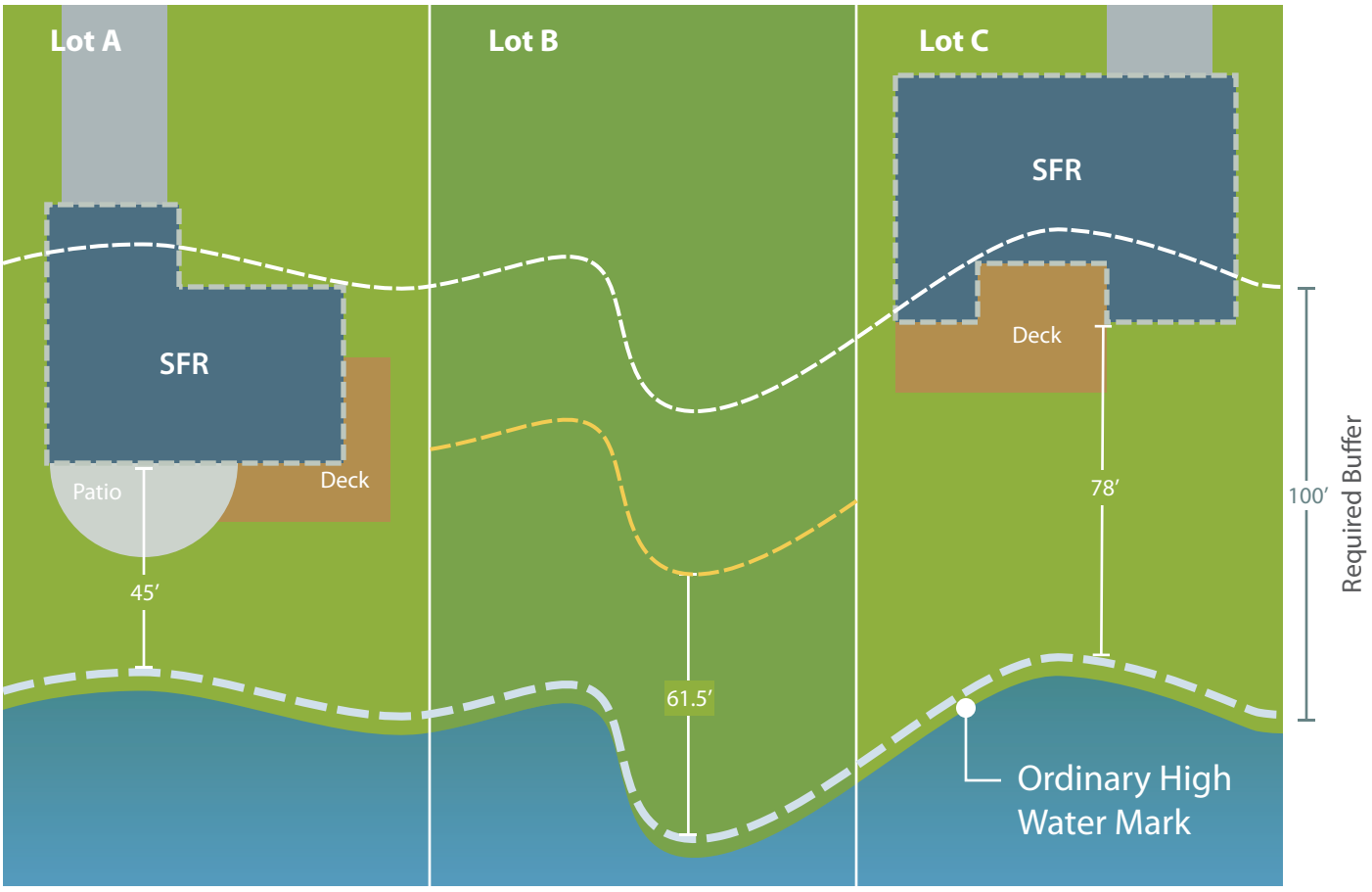
FIGURE 3: MODIFIED RIPARIAN BUFFERS



OHWM = ordinary high water mark

Note: Mitigation plan required unless applicant demonstrates project will result in no net loss to shoreline ecological functions

FIGURE 4.A: COMMON LINE SETBACK BETWEEN OCCUPIED LOTS



Formula: (Lot A + Lot C)/2 = Common Line for Lot B Example: (45′ + 78′)/2 = 61.5′ Common Line for Lot B

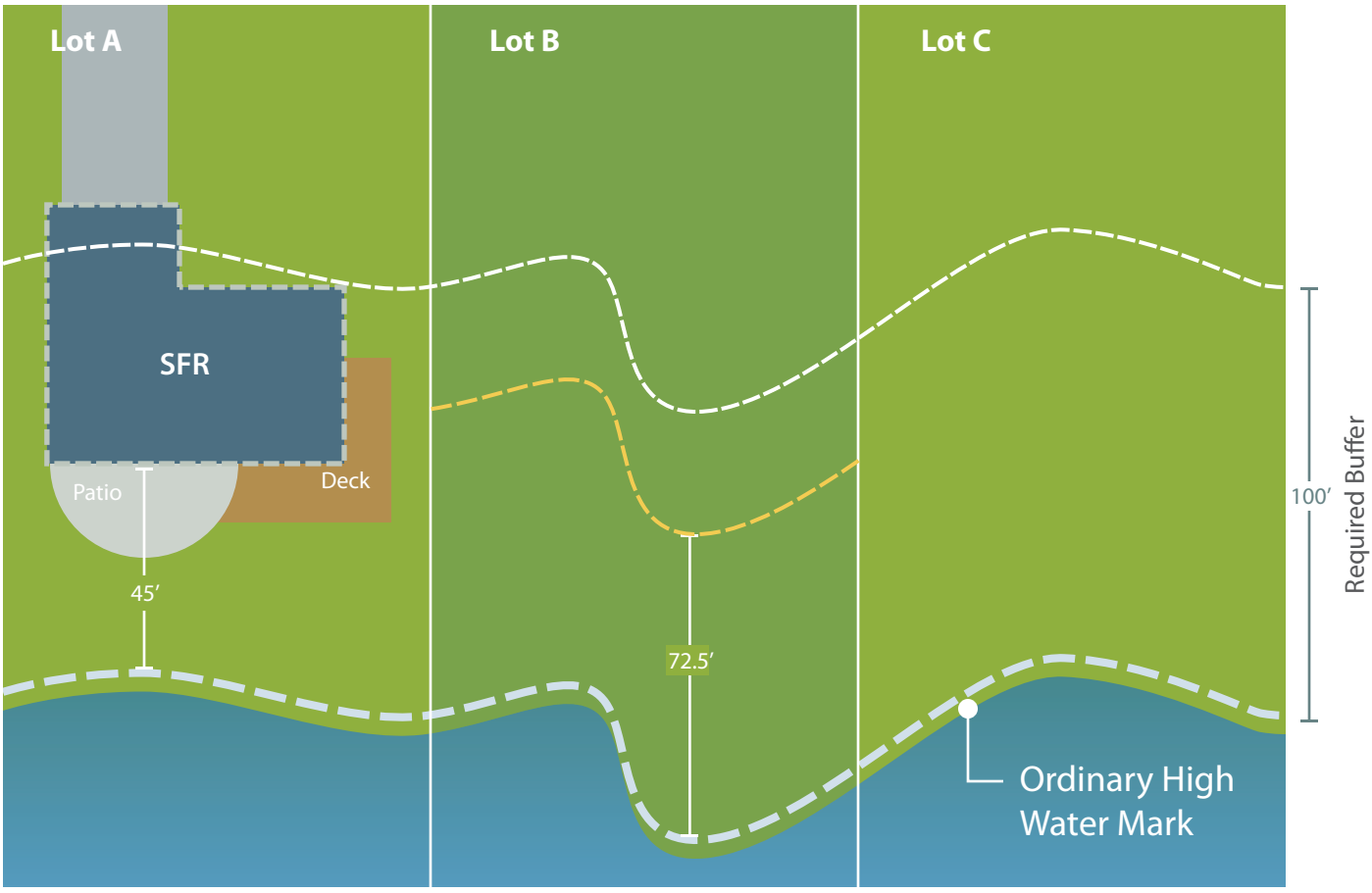
1. The common line setback shall be measured from the OHWM to the closest point of the primary residential building's foundation for each adjoining waterfront lot. If an adjoining lot, tract, parcel is vacant or right-of-way, the measurement shall be the required shoreline buffer.

2. The two measurements shall be averaged to determine the common line setback for the proposed development lot.

3. The buffer may be further reduced an additional 20% to accommodate decks and outdoor use areas provided that views from adjacent residences are not obstructed.

4. The buffer shall not be reduced to less than 25 feet from the OHWM using this common line measurement.

FIGURE 4.B: COMMON LINE SETBACK BETWEEN OCCUPIED AND VACANT LOTS



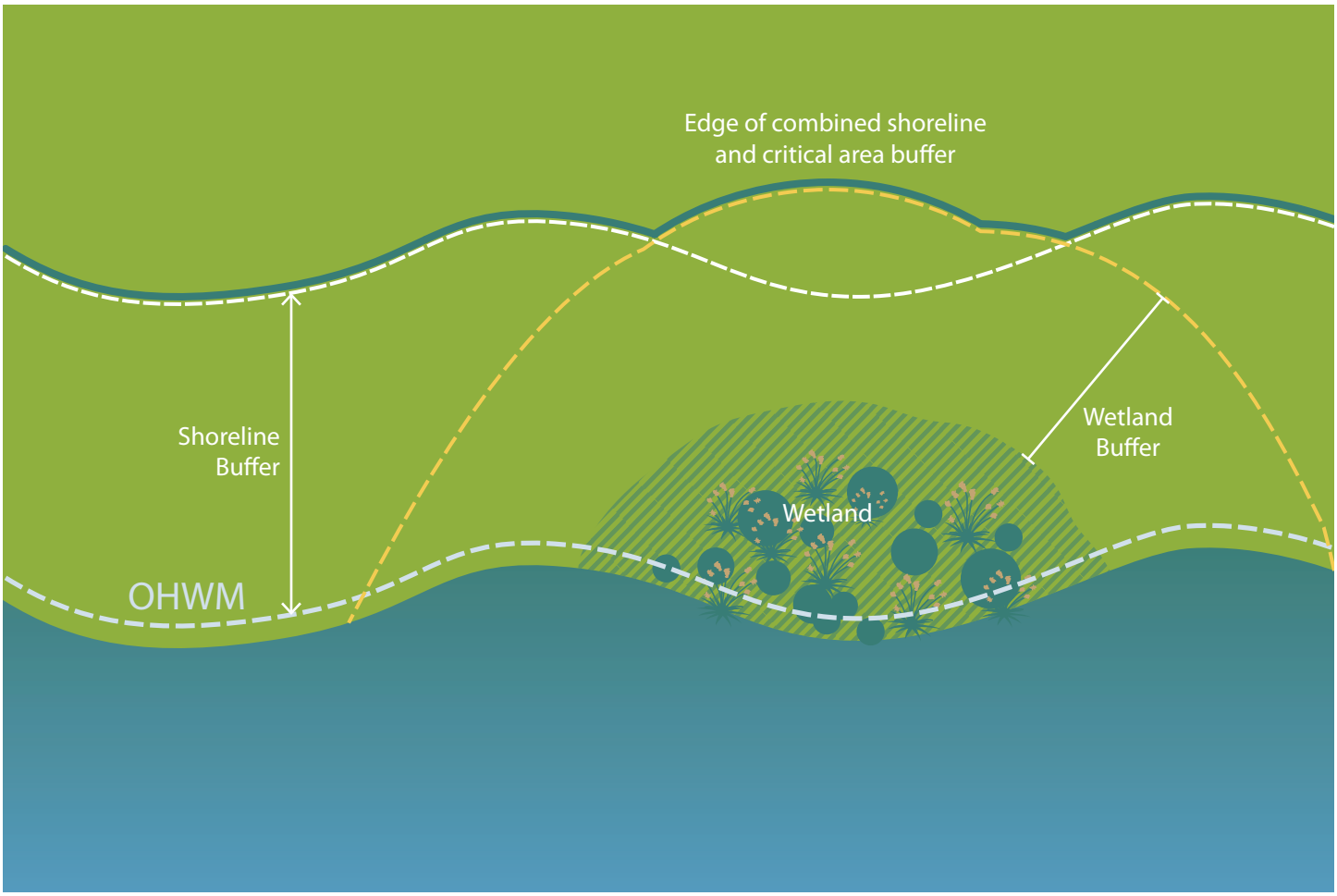
Formula: (Lot A + Lot C)/2 = Common Line for Lot B Example: (45′ + 100′)/2 = 72.5′ Common Line for Lot B

3.3 Critical Areas Requirements

Like other cities and counties in Washington, Chelan County has adopted "critical areas" regulations to protect natural areas that are deemed important. Critical areas are regulated under the Washington State Growth Management Act and include wetlands, fish and wildlife habitat conservation areas, aquifer recharge areas, frequently flooded areas, and geologically hazardous areas. Please coordinate with a County planner to make sure you are applying the correct version of the critical areas regulations under the SMP.

A given piece of property may include both a regulated shoreline and one or more of these critical areas. In these cases, both the SMP and Chelan County's critical areas regulations apply. Where regulations require a buffer or other type of land protection, typically the larger protected area, or more conservative regulation, will be applied (see Figure 5).

FIGURE 5: SHORELINE AND CRITICAL AREA BUFFER OVERLAP



3.4 Existing Structures: Maintenance, Repair, Expansion

Some older uses, lots, or structures were permitted within a shoreline area some time ago but don't meet today's SMP regulations. These are known as "nonconforming." Section 6.2 of the SMP regulates nonconformance within the shoreline environment, including existing nonconforming residential structures. In general, nonconforming residences can continue to exist and be used, maintained, remodeled, and repaired within the same building footprint in conformance to current building and land use codes.

Similarly, repair or replacement of a legally established boating facility or private moorage facility is permitted in the same location and size as the original, when consistent with the current building material standards. Additional requirements for mitigation measures and building materials may apply.

What if you want to expand a nonconforming structure beyond the existing footprint? Generally, expansions are not allowed to increase the environmental impact or encroach farther into a buffer area. Residences may be replaced, enlarged, or expanded in height or landward of the existing structure, provided there is no increase in the footprint toward the water and no net loss of shoreline ecological function. Determination of status may be obtained with written approval of the Shoreline Administrator.

There is a time limit for a use to be considered nonconforming. If a nonconforming use has been discontinued or inactive for a period of 12 consecutive months or more, the nonconforming status is terminated. In this case any future use of the land or structures will need to comply with current SMP requirements.

See Chapter 6 of the SMP for additional information:

Section 6.2.1, Nonconforming Lots

Section 6.2.3, Structural Restoration and Replacement

Section 6.2.4, Pre-existing Residential Structures

Section 6.2.5, Structural Modifications, Maintenance and Repair

Section 6.2.6, Boating Facilities and Private Moorage Facilities

Section 6.2.8, Structural Expansion

3.5 Vegetation Management

Vegetation along the shoreline provides many benefits for the waterbody, the upland area, and shoreline residents and users. Vegetation helps to stabilize soils, which filter pollutants and fine sediments, helping to improve water quality. Shoreline plants also provide important wildlife habitat and food sources for fish such as insects that fall into the water. Conserving shoreline vegetation is important to retaining these benefits.

At the same time, the SMP recognizes there are circumstances when a shoreline property owner might need or want to remove shoreline vegetation. For example, this might include maintaining a view of the water. One view corridor, limited to 25 percent of the width of the lot frontage, or 25 feet, whichever distance is less, may be permitted per privately owned lot. Whenever possible, view corridors should be located in areas dominated by non-native vegetation and invasive plant species, and removing native plants should be avoided. Removing vegetation growing in the water is prohibited. Typically the property owner will be required to submit a mitigation and management plan if shoreline ecological functions will be adversely affected by vegetation removal.

Property owners may also want to remove vegetation to reduce the risk of damage from wildfires. Vegetation removal is allowed, with a permit, within specified distances from residences, propane tanks, and other legal structures.

See Section 4.5 of the SMP for additional information. Appendix 1 of this User Guide provides a list of plant species native to Chelan County that are recommended for use in mitigation plantings.

4 Shoreline Permit Process

4.1 When Is a Shoreline Permit Required?

All proposed uses, activities, or development occurring within shoreline jurisdiction must meet the requirements of Chelan County's SMP, whether or not a permit is required. Permits help the County track development and uses in the shoreline to make sure the program requirements are being met. Shoreline permit types include a Shoreline Substantial Development Permit, Shoreline Conditional Use Permit, Shoreline Variance Permit, or Shoreline Exemption. Table 3.6-a of the SMP lists different types of uses and indicates whether they are prohibited or allowed within each Shoreline Environment Designation, and if they are allowed, what type of permit is required. Actions that qualify as exceptions to the Shoreline Management Act, and do not require a permit, are listed in Section 1.3.

A **Shoreline Substantial Development Permit** is typically required for a project that proposes to undertake a "substantial development" within the shoreline jurisdiction. A substantial development is any development whose total cost or fair market value exceeds $7,047 (in 2021), or as later adjusted by the State Office of Financial Management, or any development that materially interferes with the normal public use of the water or shorelines of the state.

A **Shoreline Conditional Use Permit** is needed if a proposed use is listed as a conditional use in Table 3.6-a, or if the SMP does not address the proposed type of use. For example, a single-family residence requires a Shoreline Conditional Use Permit in shorelines designated as Natural. Dikes and levees are prohibited in Natural-designated shoreline areas but require a Shoreline Conditional Use Permit in other types of shoreline environments.

A **Shoreline Variance Permit** is used to allow a project to deviate from an SMP's dimensional standards (e.g., setback, height). The applicant has to demonstrate that a variance is needed because of circumstances specific to the property that pose a hardship. Review criteria for variances are provided in Section 7.8.2.

A **Shoreline Exemption** applies to certain types of projects that do not require a Shoreline Substantial Development Permit. However, **these activities still must meet all applicable SMP standards**. Any property owner may request a written Letter of Exemption from the County to document that their project is in compliance. The following are examples of the types of projects that are exempt—see the SMP Section 7.6.3 for a full detailed list and conditions:

- Total project cost or fair market value does not exceed $7,047 (in 2021) or value as amended by the State of Washington Office of Financial Management
- Normal maintenance or repair of existing structures
- Construction of a normal protective bulkhead to protect an existing single-family residence from erosion
- Emergency construction to protect property from damage by the elements
- Construction and practices normal or necessary for farming, irrigation, and ranching
- Construction or modification of navigational aids
- Construction of a dock designed for pleasure craft only (must meet dollar limits)
- Operation, maintenance, or construction of irrigation systems
- Site exploration and investigation needed to prepare a permit application
- Aquatic noxious weed control
- Watershed restoration and fish/wildlife habitat projects
- Retrofitting existing structures to accommodate people with disabilities

For more information see the following sections of the SMP:

Section 1.3, Applicability

Table 3.6-a, Shoreline Use Matrix

Section 7.4, Application Requirements

Section 7.5, Shoreline Substantial Development Permits

Section 7.6, Exemptions from Shoreline Substantial Development Permits

Section 7.7, Shoreline Conditional Use Permits

Section 7.8, Shoreline Variance Permits

4.2 What's Required for a Shoreline Permit Application?

In order for Chelan County to review and act on a proposal, the applicant needs to provide certain information detailed in SMP Section 7.4. The County requires applicants to complete a Shoreline Permit Application form, a form called a JARPA (Joint Aquatic Resources Permit Application), and to submit detailed site plans to start the review process. Reviewing this section of the SMP and talking to a County planner are recommended to make sure you understand the requirements before submittal. The Shoreline Permit Application, JARPA, and other forms and resources can be found online at:

https://www.co.chelan.wa.us/community-development/pages/forms-and-applications

For more information see SMP Section 7.4, Application Requirements.

4.3 What Are the Steps in a Shoreline Permit Review and How Long Does It Take?

Shoreline permits are generally processed by Chelan County within 120 days. Additional time is required for the Washington State Department of Ecology review process and appeal period (see Figure 6).

The steps in the review process generally include:

(1) Pre-application review conference, where applicable

(2) Plan review

(3) Determination of completeness

(4) Notice of application

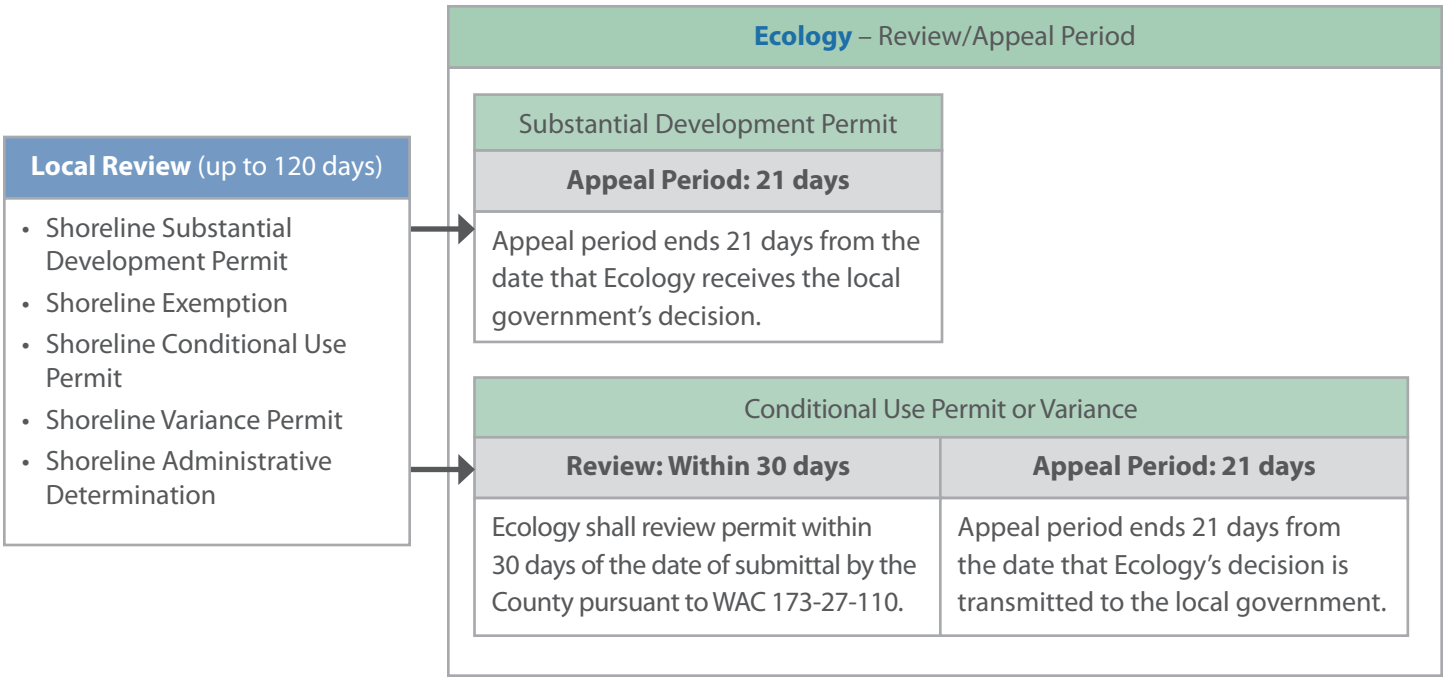
(5) Application review

(6) Notice of final decision

The Washington State Department of Ecology also reviews Shoreline Exemptions that require federal permits under Section 10 of the Rivers and Harbors Act of 1899 and Section 404 of Federal Water Pollution Control Act of 1972. Ecology reviews these exemptions and must concur that the exemption is appropriate.

For more information about permitting requirements and processes, see SMP Chapter 7 and Chelan County Code Title 14, and talk to a County planner about the specifics of your project.

FIGURE 6: SHORELINE PERMIT REVIEW TIMELINE



4.4 What About Other Permits?

A shoreline permit does not take the place of any other required permit or review. A project or development may also require other types of permits from the County or other agencies, such as:

- Washington State Environmental Policy Act (SEPA) determination
- County building permit
- County floodplain development permit
- Washington State Department of Ecology Water Quality Certification
- Washington Department of Fish and Wildlife Hydraulic Project Approval
- Lease or right-of entry from the Washington State Department of Natural Resources
- Federal U.S. Army Corps of Engineers permit for work in navigable waters of the United States

Appendix 1: Chelan County Native Plant Guide

Note: This is provided for reference purposes. Please work with a qualified biologist to develop a planting plan when selecting riparian plant species to be planted adjacent to the shoreline.

Riparian Habitat Restoration Program

Riparian Plant Guide

Chelan County Natural Resources Department

Phone: 509-667-6533

Some Examples:

Riparian planting on Icicle River

Irrigation and fence project to keep livestock out of riparian area.

Willow cuttings planted along stream.

Stream bank stabilization with staking willow cuttings.

Riparian planting at Leavenworth Golf course with browse guards.

Browse guard to protect black cottonwood from beaver damage.

Plant Container Size Availability:

	10ci	40ci	1gal	2gal
Red Osier Dogwood	X	X	X	
Mockorange	X	X	X	X
Choke Cherry	X	X	X	X
Golden Currant	X	X	X	X
Woods rose	X	X	X	
Western Water Birch			X	
Douglas Hawthorne	X	X	X	X
Common Snowberry	X	X	X	
Quaking Aspen			X	X
Black Cottonwood		X	X	X
Vine Maple	X	X	X	X
Serviceberry	X	X	X	X
Mountain Alder	X	X	X	X
Elderberry			X	X

ci=cubic inches gal=gallon

Red Osier Dogwood

Cornus sericea

This multi-stemmed shrub grows wild along stream banks at middle elevations. In autumn, the leaves turn a deep wine color and in winter the bright red stems are easily recognizable in a snow-covered landscape. White flower clusters followed by white berries. An open shrub, the vivid colors of Red-Osier Dogwood provide year-round interest.

ANNUAL GROWTH: FAST
MAXIMUM HEIGHT: 8-10 FT.
MAXIMUM WIDTH: 6-8 FT.
FULL TO PART SUN
MEDIUM WATER
WELL-DRAINED SOIL

Mockorange

Philadelphus lewisii

The sweet fragrance of the Idaho state flower is reminiscent of orange blossoms. This deciduous shrub grows in moist conditions. It can also be found growing on dry cliff faces in middle elevations and it is drought tolerant. Shrub has bright green leaves that turn yellow in the fall. Large showy fragrant white flowers.

ANNUAL GROWTH: MEDIUM
MAXIMUM HEIGHT: 6-8 FT.
MAXIMUM WIDTH: 4-5 FT.
FULL TO PART SUN
MEDIUM WATER
WELL-DRAINED SOIL

Choke Cherry

Prunus virginiana

This multi-stemmed large shrub or small tree tends to form root suckers in thick colonies. The drooping clusters of delightfully fragrant white flowers produce bitter, purple almost black cherries beloved by birds. It grows wild in stream bottoms and moist hillsides throughout the Western region.

ANNUAL GROWTH: MEDIUM
MAXIMUM HEIGHT: 10-15 FT.
MAXIMUM WIDTH: 8-10 FT.
FULL SUN
MEDIUM WATER
ADAPTS TO MOST SOILS

Golden Currant

Ribes aureum

Aside from it's natural beauty, this all-around plant has many uses: it provides year long food for browsers, birds savor the sweet berries, and humans enjoy unusual jellies, pies, and even ice cream made from the marble size, orange to black colored fruit. Golden Currant was named for the spicy-fragrant showy yellow blossoms in the springtime and should be strategically placed to emphasize the beautiful color in the fall.

ANNUAL GROWTH: FAST
MAXIMUM HEIGHT: 4-6 FT.
MAXIMUM WIDTH: 3-6 FT.
FULL SUN
LOW WATER
AVERAGE SOIL

Mountain Alder

Alnus tenuifolia

Deciduous, thicket forming multi-stemmed shrub with spreading, slender branches or sometimes a small tree with several trunks and a rounded crown. Found along banks of streams, swamps and mountain canyons in moist soils. Has dark green leaves and attractive light colored bark. Likes moist, cool sites along streams.

ANNUAL GROWTH: MEDIUM
MAXIMUM HEIGHT: 20-35 FT.
MAXIMUM WIDTH: 20 FT.
FULL SUN TO PARTIAL SHADE
MEDIUM WATER
AVERAGE SOILS

Elderberry

Sambucus cerulea

Elderberries are hardy, native shrubs that have great ornamental and fruiting value. The bright-green foliage is rarely bothered by insects or disease and is very easy to grow. They produce beautiful, large, white flower heads in the spring that are followed by large clusters of blue-black berries in late summer. They are an important food source for fruit-eating birds. The berries also make great jelly, jam, pie, juice, syrup or wine.

ANNUAL GROWTH: MED- FAST
MAXIMUM HEIGHT: 8-12 FT.
FULL TO PART SHADE
MEDIUM WATER
WELL-DRAINED SOIL

Vine Maple

Acer circinatum

A deciduous shrub or small tree has a short, crooked trunk, with twisted, spreading limbs and a low, irregularly shaped crown. The trunk sometimes grows almost horizontally and may root if it touches the ground. Vine maple gets its common name because it will be vine-like when grown in the shade. The foliage turns orange to red in the fall. In the sun, the plant has an upright, shrubby growth habit.

ANNUAL GROWTH: MEDIUM
MAXIMUM HEIGHT: 15 FT.
MAXIMUM WIDTH: 20 FT.
SHADE TO FULL SUN
MEDIUM WATER
MOIST, HUMUS RICH SOILS

Serviceberry

Amelanchier alnifolia

This is a very slow-growing, deciduous shrub that grows to 10 feet tall. This good wildlife plant is an attractive bush with an abundance of white flowers, and the fruits look something like a blueberry. The fruit of this plant was important as a food source for the native American tribes that lived within its range. This shrub is valuable for revegetation of disturbed lands and stabilizes loose, disturbed soils, especially erodable slopes.

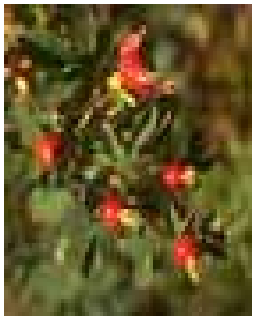
ANNUAL GROWTH: MEDIUM
MAXIMUM HEIGHT: 8-14 FT.
MAXIMUM WIDTH: 5-10 FT.
FULL SUN TO PARTIAL SHADE
MEDIUM WATER

Woods Rose

Rosa woodsii

This lovely native is filled with delicate pink blossoms in the springtime that change to large red hips that add color to the winter garden. The branches are covered with a dense layer of fine thorns that provide defense from grazing animals. The Woods Rose spreads vigorously from root suckers to form thick hedges that provide sanctuary for birds and small animals. Most drought tolerant rose.

ANNUAL GROWTH: FAST
MAXIMUM HEIGHT: 4-5 FT.
MAXIMUM WIDTH: 3-5 FT.
FULL SUN
LOW WATER
WELL-DRAINED SOIL



Western Water Birch

Betula occidentalis

This charming multi-stemmed tree grows in dense thickets. Shiny red cherry tree-like bark and leaves that turn yellow-orange in the fall distinguish this tree common to mountain streams and meadows. It is more pest and disease resistant than European birches making it a better choice for Western landscapes.

ANNUAL GROWTH RATE: FAST
MAXIMUM HEIGHT: 30 FT.
MAXIMUM WIDTH: 15-20 FT.
FULL TO PART SUN
MEDIUM WATER
RICH, WELL-DRAINED SOIL

Douglas Hawthorne

Crataegus douglasii

Douglas Hawthorne is a small, thorny tree that grows in thickets. It blooms in early spring with masses of white flowers that mature into small apple-like fruit. It grows in moist areas along cool stream banks in middle elevations. It is a favorite of birds and wildlife and can be used to attract them in a backyard sanctuary.

ANNUAL GROWTH: MEDIUM
MAXIMUM HEIGHT: 20-25 FT.
MAXIMUM WIDTH: THICKETS 15-20 FT.
FULL SUN
MEDIUM WATER
AVERAGE SOIL

Common Snowberry

Symphoricarpos albus

This member of the honeysuckle family can be found growing in open woods, thickets, valley slopes, rocky banks and roadsides in low to mid elevations. This shrub often forms in thickets from suckers. The snowberry is a hollow-stemmed shrub that has small, pink to white, bell-shaped flowers in small, dense, clusters at branch tips appearing June to July. Fruits are white, waxy and berry-like from September through November.

ANNUAL GROWTH: FAST
MAXIMUM HEIGHT: 3-6 FT.
MAXIMUM WIDTH: 3-6 FT.
FULL SUN TO PARTIAL SHADE
MEDIUM WATER
WELL-DRAINED SOILS

Quaking Aspen

Populus tremuloides

Most extensive native range of any tree in North America. Most aspen trees grow from root suckers and are one of the largest living organisms. Sometimes called Trembling Aspen because their leaves tremble in a light breeze due to their flattened leafstalks. Aspen can be found along ponds or streams, wetlands, and woody draws. Aspen trees grow fairly straight and become clear of lower limbs over time. Spectacular fall foliage.

ANNUAL GROWTH: FAST
MAXIMUM HEIGHT: 25-60 FT.
MAXIMUM WIDTH: 20-30 FT.
FULL SUN
MEDIUM WATER
WELL-DRAINED SOILS

Black Cottonwood

Populus balsamifera

Black cottonwood is a very fast-growing and potentially large tree, easy to establish, and useful for shade and ornament. The aggressive root systems are effective soil stabilizers and make the species useful in restoration of riparian areas, where it also provides protection for the aquatic environment, especially in helping to maintain low water temperatures through shading.

ANNUAL GROWTH: RAPID
MAXIMUM HEIGHT: 100-160 FT.
MAXIMUM WIDTH: 20-35 FT.
FULL SUN
HIGH WATER
AVERAGE SOIL

About the Chelan County Natural Resources Department:

The Chelan County Natural Resource Department works on a variety of local natural resource issues, including water resources, forest health, salmon recovery, agricultural activities and parks and recreation. The Department places a special emphasis on the impact of local, state, federal, tribal, and other initiatives, both regulatory and non-regulatory, on the natural resource and economic base of Chelan County. The Department works extensively with private landowners to protect and restore shoreline and fish and wildlife habitat and is an excellent technical resource for these efforts.

Chelan County
Natural Resources Department

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Chelan County
Shoreline Master Program User Guide

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