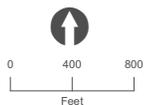




Notes:
 1. Road rights of way where roadways are or will be developed at grade are considered High Intensity whether specifically mapped or not.
 2. All areas waterward of the Ordinary High Water Mark have an Aquatic designation.

All features depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.

Environment Designations Chelan 01



November 29, 2012
 Data: WA DNR, WA OFM,
 Chelan County,
 Aerial: 2011 USDA NAIP

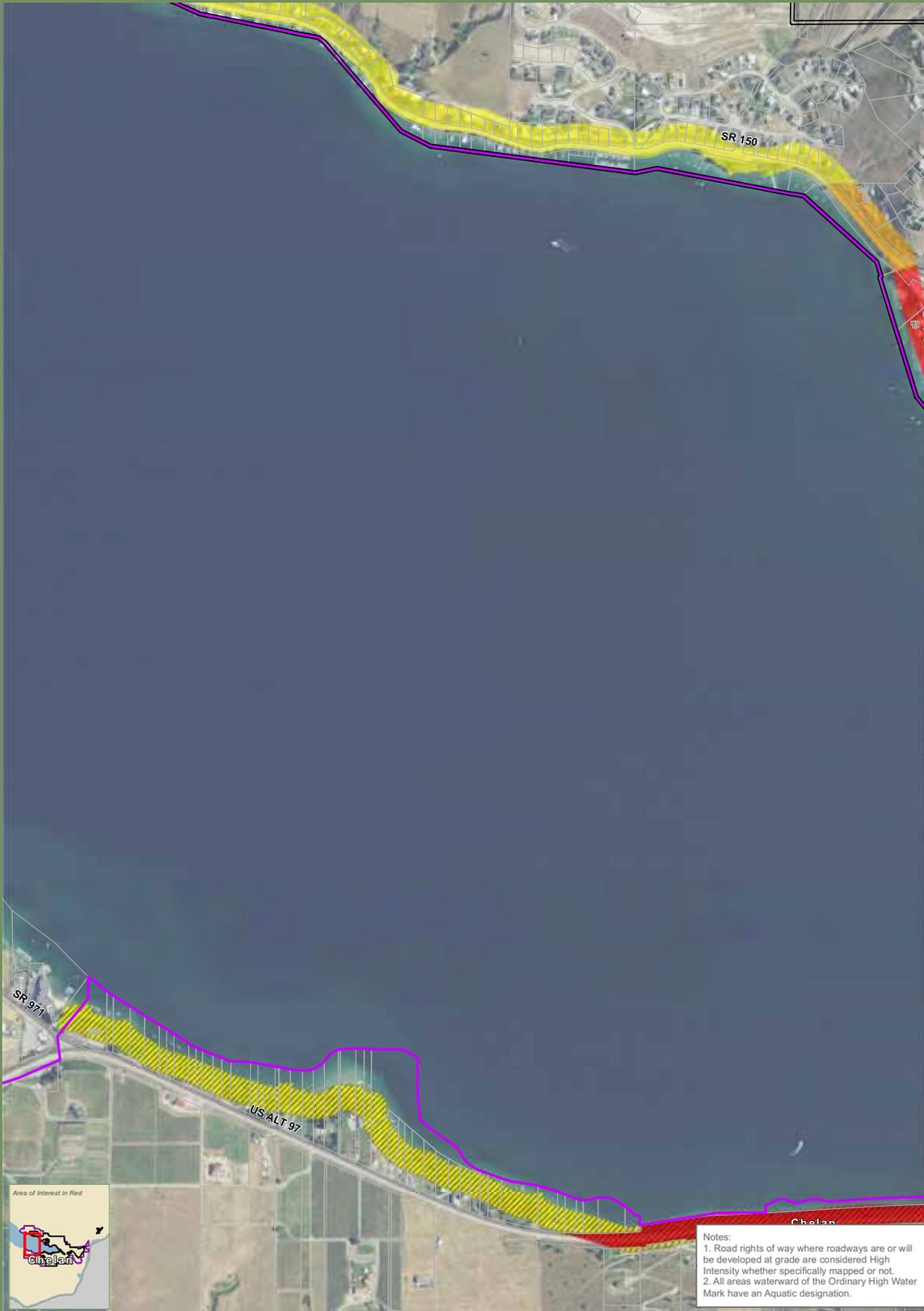
CCH--Environment Designations

- Shoreline Park/Public
- Shoreline Residential - SF
- Shoreline Residential - MF
- High Intensity

Chelan UGA

- ▨ Shoreline Park/Public
- ▨ Shoreline Residential - SF
- ▨ Shoreline Residential - MF
- ▨ High Intensity

- Highways
- Railroads
- Parcels
- City Boundaries
- UGA Boundaries
- WRIA Boundaries

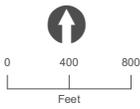


Notes:
 1. Road rights of way where roadways are or will be developed at grade are considered High Intensity whether specifically mapped or not.
 2. All areas waterward of the Ordinary High Water Mark have an Aquatic designation.

Environment Designations

Chelan 02

All features depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.



November 29, 2012
 Data: WA DNR, WA OFM, Chelan County, Aerial: 2011 USDA NAIP



CCH--Environment Designations

- Shoreline Park/Public
- Shoreline Residential – SF
- Shoreline Residential – MF
- High Intensity

Chelan UGA

- Shoreline Park/Public
- Shoreline Residential – SF
- Shoreline Residential – MF
- High Intensity

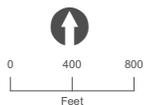
- Highways
- Railroads
- Parcels
- City Boundaries
- UGA Boundaries
- WRIA Boundaries



Notes:
 1. Road rights of way where roadways are or will be developed at grade are considered High Intensity whether specifically mapped or not.
 2. All areas waterward of the Ordinary High Water Mark have an Aquatic designation.

Environment Designations Chelan 03

All features depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.



November 29, 2012
 Data: WA DNR, WA OFM,
 Chelan County,
 Aerial: 2011 USDA NAIP



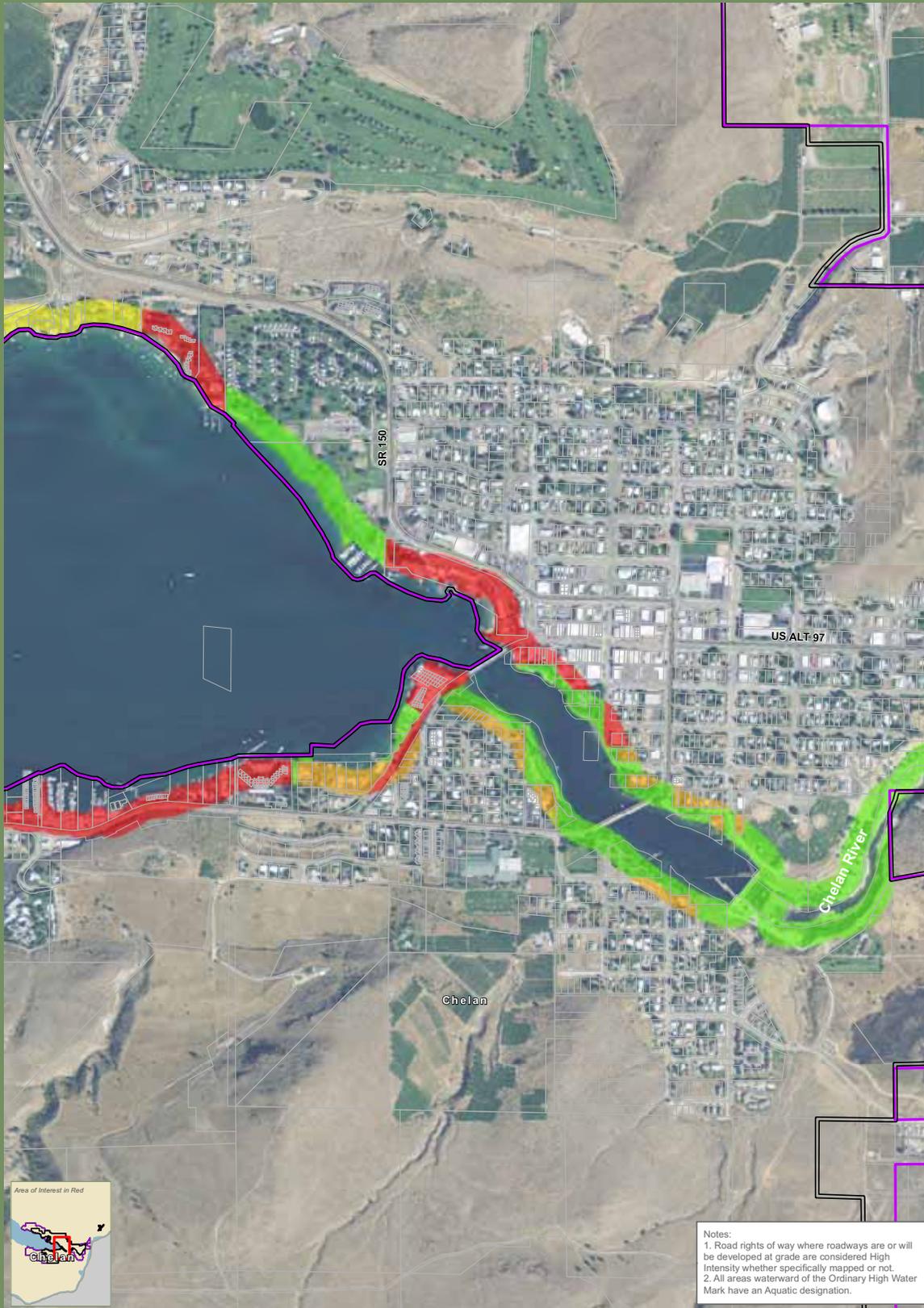
CCH--Environment Designations

- Shoreline Park/Public
- Shoreline Residential – SF
- Shoreline Residential – MF
- High Intensity

Chelan UGA

- ▨ Shoreline Park/Public
- ▨ Shoreline Residential – SF
- ▨ Shoreline Residential – MF
- ▨ High Intensity

- Highways
- Railroads
- Parcels
- City Boundaries
- UGA Boundaries
- WRIA Boundaries

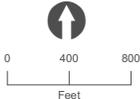


Notes:
 1. Road rights of way where roadways are or will be developed at grade are considered High Intensity whether specifically mapped or not.
 2. All areas waterward of the Ordinary High Water Mark have an Aquatic designation.

All features depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.

Environment Designations

Chelan 04



November 29, 2012
 Data: WA DNR, WA OFM, Chelan County, Aerial: 2011 USDA NAIP



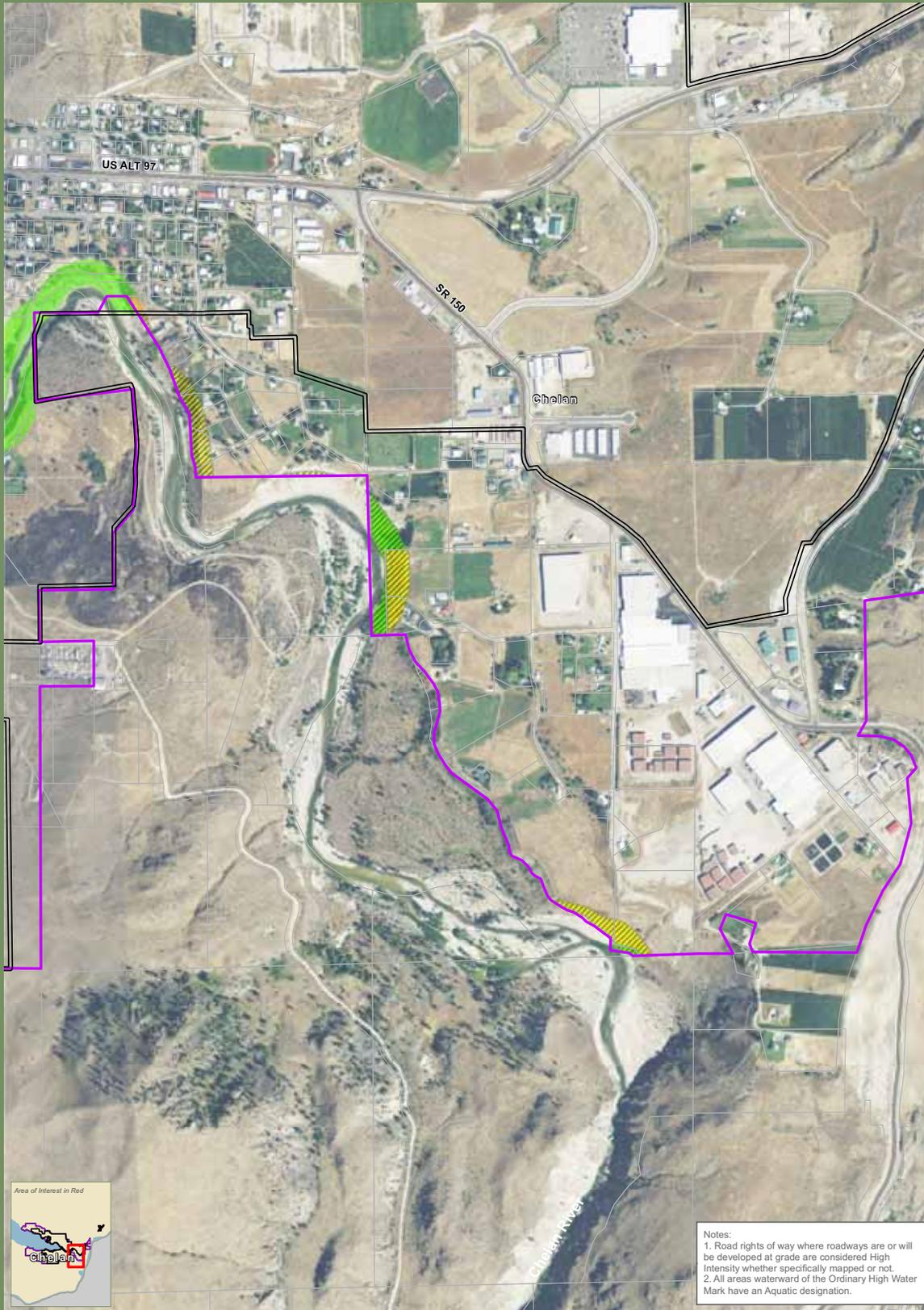
CCH--Environment Designations

- Shoreline Park/Public
- Shoreline Residential – SF
- Shoreline Residential – MF
- High Intensity

Chelan UGA

- Shoreline Park/Public
- Shoreline Residential – SF
- Shoreline Residential – MF
- High Intensity

- Highways
- Railroads
- Parcels
- City Boundaries
- UGA Boundaries
- WRIA Boundaries

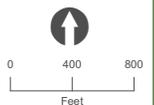


Notes:
 1. Road rights of way where roadways are or will be developed at grade are considered High Intensity whether specifically mapped or not.
 2. All areas waterward of the Ordinary High Water Mark have an Aquatic designation.

Environment Designations

Chelan 05

All features depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.



November 29, 2012
 Data: WA DNR, WA OFM,
 Chelan County,
 Aerial: 2011 USDA NAIP

CCH--Environment Designations

- Shoreline Park/Public
- Shoreline Residential – SF
- Shoreline Residential – MF
- High Intensity

Chelan UGA

- ▨ Shoreline Park/Public
- ▨ Shoreline Residential – SF
- ▨ Shoreline Residential – MF
- ▨ High Intensity

- Highways
- Railroads
- Parcels
- City Boundaries
- UGA Boundaries
- WRIA Boundaries

**CRITICAL AREAS REGULATIONS IN SHORELINE JURISDICTION
CITY OF CHELAN**

Sections:

- 1.010 Legislative purpose.
- 1.020 Definitions.
- 1.030 General provisions.
- 1.040 Appeal from decisions.
- 1.050 Designation, classification, and protection.
- 1.060 Warning and disclaimer of liability.
- 1.070 Administration.
- 1.080 Civil penalties and enforcement.
- 1.090 Criminal penalties.
- 1.100 Critical areas review checklist.

1.010 Purpose.

The purpose of this chapter is to satisfy the requirements of the Shoreline Management Act for critical areas protection in shoreline jurisdiction as provided in WAC 173-26-221 to comply with the provisions of the Washington State Growth Management Act of 1990, Chapter 17, Chapter 36.70A RCW, as amended; to supplement the development requirements contained in the Chelan Municipal Code; and to establish special standards for the use and development of lands within the city's shoreline jurisdiction based on the existence of critical areas including critical aquifer recharge areas, fish and wildlife habitat conservation areas, frequently flooded areas, geologically hazardous areas, and wetlands. Those critical areas are of special concern to the city. The standards and procedures established in this chapter are intended to protect critical areas and the public health, safety, and welfare by preventing the adverse impacts of development listed in this section while accommodating the rights of property owners to reasonable use of their property. By regulating development and alterations to critical areas this chapter seeks to:

A. Protect members of the public and public and private resources and facilities from injury, loss of life, property damage or financial losses due to flooding, erosion, landslide, seismic events or steep slope failure;

B. Protect unique fragile and valuable elements of the environment, including ravines and wetlands;

C. Mitigate unavoidable impacts to critical areas by regulating alterations in and adjacent to those areas;

D. Provide city officials with the information and authority to protect critical areas and implement the policies of the State Environmental Policy Act, Chapter 43.21C RCW, the city of Chelan comprehensive plan, and the Growth Management Act of 1990.

City of Chelan Critical Areas Regulations

1.020 Definitions.

Words, terms and phrases used in these regulations are defined in Chapter 8, Definitions of this Shoreline Master Program and supplemented herein. Except where specifically defined in Chapter 8 of the SMP or the following section, all words used shall carry their customary meanings unless the context indicates otherwise:

“Administrator” means the planning director or his or her designee.

“Alteration” means any human-induced action that changes the existing condition of a critical area. Alterations include, but are not limited to: grading; filling; dredging; draining; channelizing; discharging pollutants except storm water; paving, construction, application of gravel; modifying for surface water management purposes; vegetation removal or any other human activity that changes the existing landforms, vegetation, hydrology, wildlife or wildlife habitat of a critical area.

“Best management practice” is a method, technique or product, or some combination thereof, that has been demonstrated to be the most effective and reliable in minimizing impacts.

“Buffer” means an area of land immediately adjacent to a critical area that is protected from development or alteration, and may be restored or enhanced, to help protect critical area functions and values. A buffer may afford limited public access and accommodate certain other specified uses.

“Building setback” means the required separation between the top of a ravine sidewall and the foundation of a building or structure, measured on a horizontal plane and perpendicular to the top of the ravine sidewall.

“Critical area study” means an evaluation of a specific development site performed by a qualified professional as a part of a permitting process in the city or its UGA.

“Critical areas” include: areas with a critical recharging effect on aquifers used for drinking water; fish and wildlife habitat conservation areas; frequently flooded areas; geologically hazardous areas; and wetlands.

“Critical areas review checklist” is a form provided by the city and completed by the applicant that provides an indication of the presence of critical areas and the critical area study information that will be required by the city.

“Development proposal” means any activity relating to the use and/or development of land requiring a permit or approval from the city, including but not limited to: commercial or residential building permit; grading or clearing permit; conditional use permit; planned development; shoreline substantial development permit; variance or conditional use permit; subdivision; short subdivision; variance; rezone; or any subsequently required permit or approval not expressly exempted by this chapter.

“Emergency” means an unanticipated event or occurrence that poses an imminent threat to public health, safety, welfare or the environment, and that requires immediate action within a time too short to allow full compliance with these regulations.

“Erosion hazard areas” are those areas that can result in hazards to public health and safety when the ground is disturbed.

- “Excavation and grading” is the mechanical removal of earth material, clearing of trees, brush, shrubs or grass, including any filling or leveling of surface contours.
- “Fish and wildlife habitat conservation areas” are areas reserved for management and maintenance of fish and wildlife habitats, as designated in this chapter.
- “Frequently flooded area” means any area of special flood hazard, as designated in these regulations.
- “Geologically hazardous area” means any area in the city or its UGA that, because of its susceptibility to erosion, sliding, earthquake, or other geological events, is not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.
- “Geotechnical assessment” means an assessment prepared by a qualified professional for geological hazards detailing the surface and subsurface conditions of a site and delineating the areas of a property subject to geologic hazards.
- “Geotechnical engineer” is a person with a Washington State license in civil engineering who has at least four years of professional employment as a geotechnical engineer with experience in landslide, erosion and seismic hazards identification and mitigation.
- “Geotechnical report” means a report prepared by a qualified professional for geological hazards that evaluates the site conditions and mitigating measures necessary to ensure that the risks associated with geologic hazards are eliminated on the site proposed to be altered.
- “Hydrogeologic evaluation” means a systematic study of geologic and ground water resources, focusing on near-surface geologic, ground water, and pollution sensitivity, for the purpose of determining any potential risk to human health, ground water quality, and the environment.
- “Intermittent stream” means a stream that flows for only part of the year, including streams that flow for only hours or days after significant rainfall or during snowmelt.
- “Landslide hazard areas” means areas potentially subject to landslides based on a combination of geologic, topographic and hydrologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), aspect, structure, hydrology or other factors.
- “Mitigation” is an action involving avoidance, reduction or compensation for anticipated adverse impacts. The types of mitigation, from least to most intrusive, are listed in order of preference under the heading “Mitigation Sequencing” in Section 1.030(J)(2).
- “Monitoring” is the process of collecting and evaluating data to assess the biological, hydrological or geological performance of newly created, restored, rehabilitated and/or affected critical areas.
- “Potential critical area” means any area that, based on the reference materials and designations in this chapter, is reasonably likely to be a critical area.

City of Chelan Critical Areas Regulations

“Qualified professional” means a person with experience and training in the pertinent scientific discipline. A qualified professional must have obtained a B.S. or B.A. or equivalent degree and two years of related work experience.

- A qualified professional for fish and wildlife habitat conservation areas must have a degree in biology or a related academic field and professional experience with habitat management in the Inland Northwest.
- A qualified professional for wetlands must be a certified professional wetland scientist or a noncertified wetland scientist with a minimum of five years’ experience as a wetlands professional in the Inland Northwest, including delineating wetlands using the state or federal manuals, preparing wetlands reports, conducting functional assessments, and developing and implementing mitigation plans.
- A qualified professional for geological hazards must be a geologist or engineer licensed in the state of Washington, with experience evaluating the type of geologic hazard known or suspected to occur at the subject site.
- A qualified professional for aquifer recharge areas must be a geologist or engineer licensed in the state of Washington, with experience in preparing hydrogeologic evaluations.

“Ravine” means the steep-sided valley of a stream (whether perennial or intermittent) created by the wearing action of the stream and including the valley floor and sidewalls.

“Ravine sidewall area” means that portion of a ravine that abuts and rises from the valley floor. Ravine sidewalls contain slopes predominantly in excess of forty percent, although portions may be less than forty percent. The toe of a ravine sidewall is the stream valley floor. The top of a ravine sidewall is typically a distinct line where the slope abruptly levels out. Where there is no distinct break in slope, the top is where the slope diminishes to less than twenty percent. Minor natural or manmade breaks in the slope of ravine sidewalls shall not be considered as the top. Benches with slopes less than twenty percent and containing developed or developable areas shall be considered as the top.

“Regulated wetland” means a wetland designated in this chapter.

“Seismic hazard area” means any area subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction, or surface faulting.

“Slope,” when used as a noun, means an inclined ground surface, the inclination of which is expressed as a ratio (percentage) of vertical distance to horizontal distance by the following formula: $y_1 - y_2 / x_1 - x_2$, where y_1 and y_2 are points on the vertical axis and x_1 and x_2 are points on the horizontal axis.

“Steep slope area” means any area in the city or its UGA in which slopes measure thirty percent or greater over a vertical distance of at least ten feet. A slope is

delineated by establishing its toe and top and measured by averaging the inclination over at least ten feet of vertical distance.

“Streams” are surface water contained within a defined bed or channel, whether permanent or intermittent. This definition does not include ditches, canals, storm water runoff devices or other entirely artificial watercourses. A stream which has been altered to carry naturally occurring waters is a stream within this definition.

“Wetland(s)” or “wetland areas” means areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support (and that under normal circumstances do support) a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas to mitigate the conversion of wetlands.

1.030 General provisions.

A. Applicability. All development or other alterations in or within two hundred and fifty feet of critical areas and located in shoreline jurisdiction, whether public or private, shall comply with the requirements and purposes of this chapter. Responsibility for the enforcement of the provisions of this chapter shall rest with the administrator.

1. For the purposes of this chapter, “development” includes proposals which require any of the following: commercial or residential building permit; grading or clearing permit; conditional use permit; planned development; shoreline substantial development permit; conditional use permit; subdivision; short subdivision; variance; rezone or any subsequently required permit or approval not expressly exempted by this chapter.

2. Alterations include, but are not limited to, construction or exterior alteration of a structure or structures, dredging, drilling, dumping, filling, removal of vegetation or natural resources, placing of obstructions, any project of a permanent nature or changes in the use of land or preparation for the change of use of land.

3. This chapter shall not alter the city’s responsibility for the enforcement of the State Environmental Policy Act or the International Building Code.

B. Reference Maps and Materials. The city shall maintain reference maps and materials that provide information on the general locations of critical areas and their functions and values. Since boundaries are generalized, the application of this chapter and the actual type, extent, and boundaries of critical areas shall be determined and governed by the designation and classification sections for each critical area. In the event of any conflict between the maps and the provisions of this chapter or the site-specific

City of Chelan Critical Areas Regulations

conditions, the provisions and/or site-specific conditions shall prevail. Reference materials shall include, but shall not be limited to, the following (or, where applicable, any subsequent or amended version):

1. City of Chelan generalized critical areas map.
 2. Wetlands map, based on the National Wetlands Inventory (NWI) maps.
 3. Washington State Wetlands Identification and Delineation Manual (Washington Department of Ecology Publication No. 96-94, or as amended).
 4. Washington State Wetlands Rating System for Eastern Washington (Department of Ecology Publication No. 4-06-15, or as amended).
 5. Wetlands in Washington State, Volumes 1 and 2 (Department of Ecology Publications No. 05-06-006 and No. 05-06-008, or as amended).
 6. Maps of the city of Chelan prepared by the Source Water Assessment Program of the Washington State Department of Health, Division of Environmental Health, Office of Drinking Water (SWAP).
 7. The Chelan County Soil Survey.
 8. City of Chelan land use map and records for identification of areas in which aquifer contamination potential is high.
 9. Fish and wildlife habitat maps, based on the Washington Department of Fish and Wildlife's current priority habitat and species data.
 10. City of Chelan open space map.
 11. Maps published by the U.S. Geological Survey or the Washington State Department of Natural Resources showing areas designated as quaternary slumps, earthflows, mud flows, lahars, or landslides.
 12. Seismic Design Category Map for Residential Construction in Washington, Sheet 2.
 13. The Flood Insurance Study for the City of Chelan, Washington, and the accompanying flood hazard boundary maps and flood insurance rate maps.
 14. City of Chelan flood hazard areas regulations.
 15. City of Chelan comprehensive plan.
 16. City of Chelan shoreline master program.
 17. Current applicable building codes.
 18. Any approved critical areas studies, hydrogeologic evaluations, channel migration zone studies, special studies, or detailed studies.
 19. Monitoring data.
- C. Critical Areas Review Process.
1. Reference Materials. The city shall maintain a generalized critical areas map and other reference materials, per subsection E of this section, which may be used to locate known and potential critical areas. The city shall make the reference materials available for reference in the city offices.
 2. Preliminary Evaluation. Submittal of a critical areas review checklist shall be required prior to any development or other alteration in or within two hundred and fifty feet of a known or potential critical area, whether or not a permit is required for such an alteration. The application for any development

proposal for which a permit is required shall include submittal of a checklist by the applicant and completion of the checklist by city staff. Each checklist shall indicate whether any critical area(s) is located on the site. Said checklist shall be provided by the city. The first page shall be completed by the applicant and shall provide the administrator with the information necessary for the preliminary evaluation of the proposed alteration.

3. On receipt of a critical areas review checklist, the administrator shall conduct a preliminary evaluation, which shall include visiting the site and reviewing the following information:

- a. Any pertinent information provided by the applicant;
- b. The city's generalized critical areas map and other relevant reference materials; and
- c. Any other pertinent information including but not limited to the information on the critical areas review checklist and (when required) a SEPA checklist.

Based on the preliminary evaluation, the administrator shall determine whether or not sufficient information is available to evaluate the proposal.

4. If the administrator determines that the information presented is not sufficient to adequately evaluate the impact on critical areas of a proposed alteration, he or she shall notify the applicant that a critical area study is required. In the event that multiple critical areas occur on a given site, each critical area shall be addressed independently and all critical areas shall be addressed collectively for the purpose of determining development standards and appropriate mitigating measures.

5. In the case of landslide or erosion hazard areas, should the applicant question the presence of such areas on the site, the applicant may submit a geotechnical assessment prepared by a qualified professional for geological hazards. If the geotechnical assessment demonstrates, to the satisfaction of the administrator, that the proposed site is not located in any landslide or erosion hazard area, then the requirements of this chapter shall not apply. The geotechnical assessment shall include at a minimum the following:

- a. A discussion of the surface and subsurface geologic conditions of the site;
- b. A site plan of the area delineating all areas of the site subject to landslide and erosion hazards based on mapping and criteria referenced in this section. A map meeting the criteria set forth for a geotechnical report shall be included.

D. Vegetation Removal.

1. Critical areas review is required prior to removal of any vegetation, including nonnative vegetation, from a critical area or its buffer, whether or not development is proposed or a development permit is being sought. This provision applies to noxious weeds and invasive plant species, with the exception of hand removal or spot-spraying. If the administrator determines,

City of Chelan Critical Areas Regulations

based on a preliminary evaluation, that a critical area study is required, such removal of vegetation shall be incorporated in a mitigation plan designed to prevent erosion and facilitate establishment of a stable community of native plants. In all cases, including spot-spraying of noxious weeds and invasive plant species, any herbicide use must conform to all applicable laws, including labeling laws.

2. Unauthorized Vegetation Removal. Vegetation removal conducted without the appropriate review and approvals shall be mitigated in conformance with an approved mitigation plan meeting the standards of this chapter.

E. Critical Area Study. If the administrator determines that the site of a proposed development includes, is likely to include, or is adjacent to one or more critical areas, a critical area study may be required. When required, the expense of preparing the critical area study shall be borne by the applicant. The content, format and extent of the critical area study shall be approved by the administrator.

1. The requirement for a critical area study may be waived by the administrator if there is substantial evidence that:

a. There will be no alteration of the critical area(s) and/or the required buffer(s); and

b. The proposal will not impact the critical area(s) in a manner contrary to the purpose, intent and requirements of this chapter and the city's comprehensive plan; and

c. The minimum standards of this chapter will be met.

2. Every critical area study shall be completed by a qualified professional who is knowledgeable about the specific critical area(s) in question, and approved by the administrator.

3. At a minimum, a required critical area study shall contain the following information:

a. Applicant's name and contact information; permits being sought; and description of the proposal;

b. A copy of the site plan for the alteration proposal, drawn to scale and showing:

i. Identified critical areas, buffers, and the proposed alteration with dimensions;

ii. Limits of any areas to be cleared; and

iii. A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations;

c. The names and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site;

d. Identification and characterization of all critical areas within, or within two hundred and fifty feet of, the project area or within any proposed buffer;

- e. An assessment of the probable cumulative impacts to critical areas resulting from the proposed development of the site;
- f. An analysis of site development alternatives;
- g. A description of reasonable efforts made to apply mitigation sequencing, as defined in these regulations, to avoid, minimize, and otherwise mitigate impacts to critical areas;
- h. A mitigation plan as set forth in subsection (G)(3) of this section;
- i. A discussion of the performance standards proposed to ensure that ecological functions of critical areas are protected and health and safety hazards associated with critical areas are precluded;
- j. Financial guarantees proposed to ensure compliance with mitigation plan and performance standards; and
- k. Any additional information required for specific critical areas as listed in subsequent sections of these regulations.

5. The administrator may request any other information reasonably deemed necessary to understand impacts to critical areas.

F. Development Standards. Upon review of the critical area study, the administrator may require compliance with all or part of the development standards listed in this chapter. At a minimum, the administrator shall require that development mitigate any impacts that degrade the functions and values of critical areas in accordance with the mitigation provisions in subsection J of this section.

G. Mitigation Requirements.

1. The applicant shall avoid all impacts that degrade the functions and values of critical areas. If alteration is unavoidable, all adverse impacts to critical areas and buffers resulting from the proposal shall be mitigated in accordance with an approved critical areas report and SEPA documents. The location of the mitigation site shall be consistent with the most current, accurate, and complete scientific and technical information available and may be on site or off site.

2. Mitigation Sequencing. Applicants shall use the least intrusive type of mitigation feasible, and shall demonstrate that less intrusive types of mitigation have been evaluated. The types of mitigation, from least to most intrusive, are:

- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
- b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps (such as project redesign, relocation, or timing) to avoid or reduce impacts;
- c. In the case of frequently flooded areas and geologically hazardous areas, minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered methods or other methods designed by a qualified design professional;

City of Chelan Critical Areas Regulations

d. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment to historic conditions or the conditions existing at the time the project was initiated;

e. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;

f. In the case of critical aquifer recharge areas, frequently flooded areas, fish and wildlife habitat conservation areas, and wetlands, compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and

g. Monitoring the impact using a planned evaluation process and taking appropriate corrective measures.

3. Mitigation Plan. When mitigation is required, the applicant shall submit for approval a mitigation plan as part of the critical area study. Mitigation plans shall be prepared by a qualified professional and shall be consistent with the relevant impacts indicated during mitigation sequencing. Mitigation measures specified in the mitigation plan shall be maintained over the life of the use and/or development. Approval of a mitigation plan shall be a Type IB procedure, subject to Title 19. The mitigation plan shall include a written report identifying:

a. Mitigation objectives, including:

i. A description of the anticipated impacts to ecological functions, critical areas and their buffers; the type or types of mitigation proposed and how it will result in no net loss of ecological functions at the site scale, and the purposes of the measures proposed, including site selection criteria; identification of compensation objectives; identification of critical area functions and values; and dates for beginning and completion of any on-site mitigation activities;

ii. The impacts of any proposed alteration of a critical area or buffer, including proposed mitigation activities, on the development site, other properties and the environment;

iii. A review of the most current, accurate, and complete scientific and technical information available supporting the proposed mitigation and a description of the report author's experience to date in critical areas mitigation; and

iv. An analysis of the likelihood of success of the proposed mitigation.

b. Measurable criteria for evaluating whether or not the objectives of the mitigation plan have been successfully attained and whether or not the requirements of these regulations have been met. For any vegetation components of mitigation, mitigation plans shall include a performance standard of 100 percent survival for the first year of growth post

installation, with no less than 80 percent survival at the end of the third year and fifth year.

c. Descriptions and specifications for any on-the-ground mitigation activities, including, but not limited to:

- i. Proposed construction sequence, timing, and duration;
- ii. Grading and excavation details;
- iii. Erosion and sediment control measures;
- iv. A planting plan specifying plant species, quantities, locations, sizes, and spacing; and
- v. Measures to protect and maintain plants until established.

d. Where on-the-ground mitigation activities are proposed, construction and post-construction monitoring programs.

i. The purpose of the construction monitoring program is to monitor adherence to the mitigation specifications and any other requirements of these regulations.

ii. The purpose of the post-construction monitoring program is to determine whether mitigation objectives are being achieved and, if not, prescribe corrective measures. The program shall include a schedule for monitoring the project over a period adequate to establish that mitigation objectives have been met, generally at least five years from completion of the mitigation project, and shall describe the methods to be used in monitoring.

e. A list of potential corrective measures to be taken if monitoring or evaluation indicates project objectives are not being achieved.

4. Monitoring and Reporting. The mitigation project shall include a five-year monitoring plan, or other monitoring timeframe specified by local, state or federal permitting agencies, and scaled drawings of existing and proposed conditions. A monitoring report shall be submitted by the project proponent to the administrator according to the schedule specified in the mitigation plan, to document monitoring outcomes and any contingency actions. Monitoring reports associated with single-family residential development may be prepared by the property owner or applicant at the end of years 1, 3 and 5, provided that the report fully addresses the performance standards and any other maintenance requirements prescribed by the mitigation plan, and provides as-built plans and comprehensive photo documentation. The City has the right to request that property owners and applicants hire a qualified professional to prepare the report if it is not adequate.

H. Surety/Bonding. If a development proposal is subject to mitigation, maintenance, or monitoring plans, the city may require an assurance device or surety, in a form acceptable to the city attorney.

City of Chelan Critical Areas Regulations

1.040 Appeal from decisions.

A. The administrator's decision to approve, condition or deny a proposed alteration based on this chapter, unless otherwise specifically provided by ordinance, may be appealed to the city hearing examiner. Any appeal shall be in writing and submitted within ten days of the date of the city's decision. The provisions of Chelan Municipal Code Chapter 19.06 and Chapter 7.13 of this Shoreline Master Program shall govern the appeal procedure.

B. Any decision of the hearing examiner regarding a decision of the administrator, unless otherwise specifically provided by ordinance, shall be final. There shall be no further appeal to any other municipal board, officer, or the legislative authority of the city. Unless otherwise specifically provided by ordinance, any board decision shall be reviewable for unlawful, arbitrary, capricious or corrupt action or nonaction by writ of review before the Chelan County superior court; provided, that the application for writ of review shall be made to the court within ten days from any decision so to be reviewed. The costs of transcription of all records ordered certified by the court for such review shall be borne by the applicant at the rate prescribed by the administrator of this title. Such costs shall not exceed the amount necessary to reimburse the city for its expenses actually incurred.

1.050 Designation, classification, and protection.

A. Wetlands.

1. Designation. Wetlands in Chelan shall be designated according to the definition of wetlands in RCW 36.70A.030(21). Wetlands meeting the criteria of that definition shall be subject to these critical areas regulations.

2. Classification. Wetlands shall be classified according to the *Washington State Wetlands Rating System for Eastern Washington* (Department of Ecology Publication No. 14-XX-XX, or as amended). Wetland rating categories shall be applied as the regulated wetland exists on the date of the adoption or revision of the rating system by the Department of Ecology. As of the date of this writing, the rating system includes the following four categories:

a. Category I. Generally, such wetlands are not common and make up a small percentage of the wetlands in Eastern Washington. Category I wetlands include alkali wetlands, bogs and calcareous fens, wetlands with high conservation value that are identified by scientists of the Natural Heritage Program/DNR, mature and old-growth forested wetlands over ¼ acre with slow-growing trees, forested wetlands with stands of aspen, and wetlands that perform many functions well, as measured by the rating system (scores between 22-27 points). Category I wetlands are those that:

- i. Represent a unique or rare wetland type;
- ii. Are more sensitive to disturbance than most wetlands;
- iii. Are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or

iv. Provide a high level of functions.

b. Category II. Such wetlands are difficult, though not impossible, to replace. They provide high levels of some functions. Category II wetlands occur more commonly than Category I wetlands, but still need a high level of protection. Category II wetlands are:

- i. Forested wetlands in the channel migration zone of rivers;
- ii. Mature and old-growth forested wetlands over ¼ acre containing fast-growing trees;
- iii. Vernal pools; or
- iv. Those wetlands that perform functions well, as measured by the rating system (scores between 19-21 points).

c. Category III. Such wetlands have generally been disturbed in some manner, and are often less diverse and/or more isolated in the landscape than Category II wetlands. They may not require as much protection as Category I and II wetlands. Category III wetlands are wetlands with a moderate level of functions, as measured by the rating system (scores between 16-18 points).

d. Category IV. Category IV wetlands have the lowest levels of functions, as measured by the rating system (scores fewer than 16 points), and are often heavily disturbed. These are wetlands that we should be able to replace, and in some cases improve. These wetlands do provide some important functions, and should be afforded some degree of protection.

3. Critical Areas Review.

a. Preliminary Evaluation.

i. A preliminary evaluation shall evaluate known or potential wetlands on or within three hundred feet of the site of a proposed alteration.

ii. At a minimum, the National Wetlands Inventory (NWI) maps, the city's generalized critical areas map, and any critical areas study that identifies wetlands in the vicinity of a development site shall be used in completing a critical areas checklist and in the city's review for the purpose of determining whether a critical areas study will be required.

b. Identification and Delineation. Wetlands in shoreline jurisdiction shall be delineated using the procedure outlined in the approved federal wetland delineation manual and applicable regional supplements. c. In addition to the general requirements for critical area studies, the required critical area study for any wetland shall include the following:

- i. An overview of the methodology used to conduct the study;
- ii. As part of the identification and characterization, a written assessment and accompanying maps of the wetlands and buffers

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within three hundred feet of the project area, including the following information at a minimum:

- (A) Wetland delineation and required buffers;
- (B) Existing wetland acreage;
- (C) Wetland category;
- (D) Vegetative, faunal, and hydrologic characteristics;
- (E) Soil and substrate conditions;
- (F) Topographic elevations, at two-foot contours; and
- (G) A discussion of the water sources supplying the wetland and documentation of hydrologic regime (locations of inlet and outlet features, water depths throughout the wetland, evidence of recharge or discharge, evidence of water depths throughout the year such as algal layers and sediment deposits).

iii. As part of the mitigation plan, a habitat and native vegetation conservation strategy that addresses methods to protect and enhance on-site habitat and wetland functions, including the following information at a minimum:

- (A) Any proposed changes in wetland acreage;
- (B) Any proposed changes in vegetation and fauna;
- (C) Any proposed changes in surface and subsurface hydrologic conditions including an analysis of existing and future hydrologic regime, and proposed hydrologic regime for enhanced, created, or restored mitigation areas;
- (D) Location of mitigation site or sites in the watershed and relationship to existing water bodies and to associated wetlands and related wetlands that may be greater than three hundred feet from the project site;
- (E) Any proposed changes in soil and substrate conditions and topographic elevations;
- (F) Existing and proposed adjacent site conditions;
- (G) Required wetland buffers (including any buffer reduction and mitigation proposed to increase the plant densities, remove weedy vegetation, and replant the buffers); and
- (H) Ownership of mitigation site or sites.

d. An applicant should be aware that Section 404 of the Federal Clean Water Act and other federal and state statutes may apply.

e. The information provided by the study will augment the database for the Chelan area maintained by the city.

4. Development Standards.

a. General. No land surface modifications or alteration may take place and no improvement may be located in a regulated wetland except as specifically provided in this section.

b. Mitigation.

i. If alteration of a regulated wetland is unavoidable, mitigation shall be adequate to ensure no net loss of wetland area and functions including lost time when the wetland does not perform the function.

ii. Wetland mitigation ratios shall be consistent with the table below.

Category and Type of Wetland	Creation or Re-establishment	Rehabilitation	Enhancement
Category I: Bog, Natural Heritage site	Not considered possible	Case by case	Case by case
Category I: Mature Forested	6:1	12:1	24:1
Category I: Based on functions	4:1	8:1	16:1
Category II	3:1	6:1	12:1
Category III	2:1	4:1	8:1
Category IV	1.5:1	3:1	6:1

iii. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions.

Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans--Version 1, (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised), and Selecting Wetland Mitigation Sites Using a Watershed Approach (Eastern Washington) (Publication #10-06-07, November 2010).

iv. To more fully protect functions and values, and as an alternative to the mitigation ratios above, the administrator may allow mitigation based on the “credit/debit” method developed by the Department of Ecology in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Eastern Washington: Final Report” (Ecology Publication #11-06-015, August 2012, or as revised).

v. Impacts to wetland buffers shall be mitigated at a 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.

vi. The requirements of this section are in addition to the provisions of Section 1.030(G).

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c. Essential Public Facility or Utility. The administrator may permit the placement of an essential public facility or utility in a regulated wetland. The administrator must determine that the public improvement must traverse a regulated wetland because no feasible alternative location exists. Compliance with all provisions of this chapter, including mitigation requirements, shall be required.

d. Buffer Widths. Buffers shall be established adjacent to and outside of all regulated wetlands. The following standard buffer widths shall be applied based on wetland category and habitat scoring unless a critical area study establishes, based on intensity of impacts, wetlands functions, or special characteristics as described in Appendix 8-D of *Wetlands in Washington State, Volume 2: Managing and Protecting Wetlands* (Department of Ecology Publication No. 05-06-008, or as amended), that a greater or lesser buffer width would serve to protect the functions and values of a particular wetland:

Wetland Category	Standard Buffer Width	Additional buffer width if wetland scores 3-4 habitat points	Additional buffer width if wetland scores 5-7 habitat points	Additional buffer width if wetland scores 8-9 habitat points
Category I: Based on total score	75 ft	Add 15 ft	Add 45 ft	Add 75 ft
Category I: Forested	75 ft	Add 15 ft	Add 45 ft	Add 75 ft
Category I: Natural Heritage Wetlands	190 ft	N/A	NA	NA
Category II: Based on total score	75 ft	Add 15 ft	Add 45 ft	Add 75 ft
Category II: Forested	75 ft	Add 15 ft	Add 45 ft	Add 75 ft
Category III (all)	60 ft	Add 30 ft	Add 60 ft	NA
Category IV (all)	40 ft	NA	NA	NA

The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the buffer is unvegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.

e. Buffer Width Reduction with Enhancement. Buffers may be reduced by a maximum of twenty-five percent provided:

i. The critical area study demonstrates that the reduction will not:

- (A) Adversely affect water quality;
- (B) Destroy, damage, or disrupt a significant fish or wildlife habitat area, including scenic vistas;
- (C) Adversely affect drainage and/or storm water retention capabilities;
- (D) Lead to unstable earth conditions or create erosion hazards; and
- (E) Be materially detrimental to any other property in the area of the subject property or the city as a whole.

ii. The remaining buffer is enhanced with vegetation to a condition that is comparable to a comparable undisturbed plant community in the ecoregion. Enhanced buffers shall be monitored and maintained to the same standard as on-the-ground mitigation.

f. Buffer Width Reduction at Road Crossing. The required buffer may be administratively modified where a legally established road crosses a wetland buffer. The administrator may approve a modification of the minimum required buffer width to the waterward edge of the improved road if a study submitted by the applicant and prepared by a qualified professional demonstrates that the part of the buffer on the upland side of the road sought to be reduced:

- i. does not provide additional protection of the wetland; and
- ii. provides insignificant biological, geological or hydrological functions relating to the waterward portion of the buffer adjacent to the wetland.

g. Wetlands and wetland buffers shall be retained in their natural condition, with the following exceptions:

i. The following activities may occur in wetlands or wetland buffers:

(A) Education, scientific research, and low impact recreation facilities, including unpaved walkways or trails and associated facilities (e.g., benches, trash receptacles, interpretive signs) located in the outer twenty-five percent of the buffer area; wildlife viewing structures; and fishing access areas without vehicle access; provided they are designed and approved as part of an overall site development plan;

(B) Selective pruning of trees for safety or view protection is allowed in wetland buffers. Where trees pose a significant safety hazard, they may be removed from wetland buffers. All other tree removal in wetland buffers shall be minimized through site design, and mitigated

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when the loss of a tree or trees results in loss of ecological function;

(C) Existing and ongoing agricultural activities (provided no expansion into undisturbed wetland areas occurs);

(D) Maintenance of existing facilities, structures, ditches, roads and utility systems; and

(E) Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests and other related activities. In every case, critical area impacts shall be minimized and disturbed areas shall be immediately restored;

(F) Artificial wetland construction approved as part of an overall site development plan or restoration or enhancement plan.

ii. Where wetland or wetland buffer disturbance is unavoidable during adjacent construction, restoration and revegetation with native plant materials in accordance with an approved mitigation plan will be required.

B. Critical Aquifer Recharge Areas.

1. Designation. To date there has been no site-specific delineation of critical aquifer recharge areas (CARAs) for the city or its UGA, although general maps have been prepared by the Source Water Assessment Program of the Washington State Department of Health, Division of Environmental Health, Office of Drinking Water (SWAP).

a. Until CARAs have been delineated (based on site-specific modeling), the city of Chelan designates the following lands within the city and its urban growth area as potential CARAs:

i. Areas of hydrologic susceptibility, including waterbodies, surface water intake protection areas, and wellhead protection areas shown on the map prepared for Chelan County by the SWAP; wetland areas shown on the National Wetlands Inventory (NWI) map or on the city's generalized sensitive areas map; areas in which soils show permeability ratings of more than twenty inches per hour as shown in the Chelan County Soil Survey; and any other lands that have been specifically identified as critical aquifer recharge areas based on reliable scientific data; and

ii. Areas in which contamination potential is high, including landfills; agricultural activities that do not incorporate best management practices; industrial facilities with heavy chemical use; underground storage tanks; aboveground storage tanks; commercial facilities that use solvents; or electroplating facilities.

- b. Once CARAs have been delineated, the areas identified by the delineation shall be designated as CARAs.
 2. Classification. Critical aquifer recharge areas shall be classified as follows:
 - a. Critical potential: Water bodies, surface water intake protection areas, and wellhead protection areas.
 - b. High potential: Wetlands, areas in which soils show permeability ratings of more than twenty inches per hour, areas in which contamination potential is high, and any other lands that have been specifically identified as critical recharge areas based on reliable scientific data.
 3. Critical Area Review.
 - a. Preliminary Evaluation. In determining whether or not sufficient information is available to evaluate a proposal, the administrator shall, at a minimum, consider the map of water bodies, surface water intake protection areas, and wellhead protection areas prepared for Chelan County by the SWAP; the city's wetlands and generalized sensitive areas maps; and the Chelan County Soil Survey, as well as considering the critical areas checklist and conducting a preliminary evaluation. A critical area study shall be required whenever the administrator determines that the information available is not sufficient to evaluate the proposal.
 - b. Identification. All development in or within two hundred and fifty feet of any known or potential CARA, including all areas of hydrologic susceptibility and high contamination potential listed above, shall be subject to these critical areas regulations, including the critical areas review process and the requirement to complete a critical areas review checklist.
 - c. Critical Area Study. An applicant may request that the city declassify or reclassify a specific area designated as a CARA. The application must be supported by a critical area study that includes a hydrogeologic evaluation. The application to declassify or reclassify an area shall be reviewed by the administrator and a determination made regarding amendment of the map. The hydrogeologic evaluation shall include, at a minimum:
 - i. Soil texture, permeability and attenuation properties including geologic setting, occurrence and movement of ground water;
 - ii. Characteristics of the vadose zone (the unsaturated top layer of soil and geologic material) including permeability and attenuation properties;
 - iii. Depth to ground water and/or impermeable soil layer;
 - iv. Aquifer properties such as hydraulic conductivity and gradients, attenuation of contaminants;
 - v. Quantities of ground water and other relevant factors; and

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- vi. Potential for contamination of ground water due to the proposed action.
4. Development Standards. The following standards apply in all CARAs:
- a. If the critical area study or hydrogeologic evaluation identifies significant potential impacts to CARAs, the project applicant will be required to fully document those impacts and provide a discussion of alternatives by which the impacts could be avoided or prevented.
 - b. The applicant shall provide a detailed mitigation plan for any unavoidable potential impacts. The city may require that the mitigation plan include process control and remediation as appropriate. Best management practices shall be employed to avoid introducing pollutants into the aquifer.
 - c. All developments in CARAs shall be evaluated for potential to contaminate ground water resources and lake water quality. If the administrator determines that a high potential for contamination exists, he or she may require that further surface water quality controls be installed for a development prior to discharge from a site. Those controls may include wetponds, water quality swales, filtration or sedimentation ponds or other water quality measures designed to protect aquifer and lake water quality.
 - d. The following uses are prohibited in all CARAs:
 - i. Mining of any type below the water table;
 - ii. Processing, storage, and disposal of radioactive substances;
 - iii. Hydrocarbon extraction;
 - iv. Commercial wood treatment facilities on permeable surfaces;
 - v. Wrecking yards;
 - vi. Landfills for hazardous waste, municipal solid waste, or special waste; and
 - vii. On-site septic systems on lots smaller than one acre without a treatment system that results in effluent nitrate-nitrogen concentrations below ten milligrams per liter.
 - e. In addition, the following uses are prohibited in areas of critical potential:
 - i. Hazardous liquid transmission pipelines;
 - ii. Sand, gravel, and hard rock mining on land that is not zoned for mining as of the effective date of the ordinance codified in this chapter;
 - iii. Golf courses; and
 - iv. Cemeteries.
 - f. Every alteration involving hazardous substance processing or handling that is located in or within two hundred and fifty feet of a CARA shall provide containment devices adequate in size to contain on

site any unauthorized release of hazardous substances from any area where those substances are stored, handled, treated, used, or produced. Containment devices shall prevent such substances from penetrating into the ground. This provision also applies to releases that may mix with storm runoff.

g. Every alteration involving hazardous substance processing or handling which is located in or within two hundred and fifty feet of a CARA shall prepare a plan containing procedures to be followed to prevent, control, collect, and dispose of any unauthorized release of a hazardous substance.

h. Storage Tanks.

i. All storage tanks proposed for location in or within two hundred and fifty feet of a CARA must comply with local building code requirements and must conform to the 2003 International Fire Code requirements for secondary containment.

ii. Underground Tanks. All new underground tanks located in or within two hundred and fifty feet of a CARA shall be designed and constructed so as to:

(A) Prevent releases due to corrosion or structural failure for the operational life of the tank;

(B) Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance; and

(C) Use material in the construction or lining of the tank that is compatible with the substance to be stored.

iii. Aboveground Tanks. New aboveground storage tanks located in or within two hundred and fifty feet of a CARA must be installed, used and maintained so as to prevent the release of any hazardous substance to the ground, ground waters, or surface water.

i. Agriculture. New agricultural activities in or within two hundred and fifty feet of a CARA shall use best management practices to prevent ground quality degradation from livestock waste. Existing agricultural activities in or within two hundred and fifty feet of a CARA shall be encouraged to use best management practices to prevent ground quality degradation from livestock waste.

j. Sewage Disposal. All residential, commercial or industrial alterations located in or within two hundred and fifty feet of a CARA and within one hundred and fifty feet of a public sewer system shall be connected to the sewer system.

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k. Golf Courses. Golf course operations proposed in or within two hundred and fifty feet of a CARA shall be subject to a golf course maintenance plan using best management practices to protect ground water quality. The plan shall detail the proposed use of fertilizers, herbicides, pesticides, fungicides, or other maintenance agents, with projected application methods and schedules and measures to prevent pollution of ground water.

l. Commercial Vehicle Repair and Servicing. New commercial vehicle repair and servicing in or within two hundred and fifty feet of a CARA must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur. No dry wells shall be allowed in CARAs on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility development must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity. Existing commercial vehicle repair and servicing facilities shall be encouraged to comply with the provisions of this subsection.

m. The uses listed in the table below shall be conditioned in accordance with the applicable state and federal regulations as necessary to protect critical aquifer recharge areas:

Statutes, Regulations, and Guidance Pertaining to Groundwater-Impacting Activities	
Activity	Statute-Regulation-Guidance
Aboveground Storage Tanks	WAC 173-303-640
Animal Feedlots	Chapters 173-216 and 173-220 WAC
Automobile Washers	Chapter 173-216 WAC, Best Management Practices for Vehicle and Equipment Discharges (WDOE WQ-R-95-56)
Chemical Treatment Storage and Disposal Facilities	WAC 173-303-182
Hazardous Waste Generator (Boat Repair Shops, Biological Research Facility, Dry Cleaners, Furniture Stripping, Motor Vehicle Service Garages, Photographic Processing, Printing and Publishing Shops, etc.)	Chapter 173-303 WAC
Injection Wells	Federal 40 CFR Parts 144 and 146, Chapter 173-218 WAC
Junk Yards and Salvage Yards	Chapter 173-304 WAC, Best Management Practices to Prevent Stormwater Pollution at Vehicles Recycler Facilities (WDOE 94-146)

Statutes, Regulations, and Guidance Pertaining to Groundwater-Impacting Activities	
Activity	Statute-Regulation-Guidance
Oil and Gas Drilling	WAC 332-12-450, Chapter 173-218 WAC
On-Site Sewage Systems (Large Scale)	Chapter 173-240 WAC
On-Site Sewage Systems (< 14,500 gal/day)	Chapter 246-272 WAC, Local Health Ordinances
Pesticide Storage and Use	Chapters 15.54 and 17.21 RCW
Sawmills	Chapters 173-303 and 173-304 WAC, Best Management Practices to Prevent Stormwater Pollution at Log Yards (WDOE 95-53)
Solid Waste Handling and Recycling Facilities	Chapter 173-304 WAC
Surface Mining	WAC 332-18-015
Underground Storage Tanks	Chapter 173-360 WAC
Waste Water Application to Land Surface	Chapters 173-200 and 173-216 WAC, WDOE Land Application Guidelines, Best Management Practices for Irrigated Agriculture

C. Fish and Wildlife Habitat Conservation Areas.

1. Designation. The city of Chelan designates the following lands within the city and its urban growth area as fish and wildlife habitat conservation areas:
 - a. All priority habitat and species areas shown on the Washington Department of Fish and Wildlife’s (WDFW) priority habitat and species maps, as amended;
 - b. All areas shown as wildlife habitat on the city’s generalized critical areas map; and
 - c. All riparian and wildlife corridors shown on the city’s open space map.
2. Classification. The city shall use the following two general classifications of fish and wildlife habitat conservation areas:
 - a. Priority Habitat and Species Areas. All priority habitat and species areas shown on the WDFW priority habitat and species maps (as amended) shall be classified as priority habitat and species areas.
 - b. Fish and Wildlife Habitat Conservation Areas of Local Importance. Designated fish and wildlife habitat conservation areas not shown on the WDFW priority habitat and species maps (i.e., any areas shown as wildlife habitat on the city’s generalized critical areas map and any riparian and wildlife corridors shown on the city’s open space map that are not priority habitat and species areas) shall be classified as fish and wildlife habitat conservation areas of local importance.
3. Critical Area Review.
 - a. Identification and Preliminary Evaluation.

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i. At a minimum, the city's generalized critical areas map, the city's open space map, the PHS maps, and any critical areas study that identifies fish and wildlife habitat conservation areas in the vicinity of a development site shall be used to determine whether critical area review will be required for a proposed alteration, in completing a critical areas checklist, and in the city's review for the purpose of determining whether a critical areas study will be required. Specific critical area review under this Appendix B would not be required for projects in Lake Chelan, the Chelan River, and their respective setbacks, which are specifically protected and managed by the SMP to ensure no net loss of functions, unless the City's preliminary evaluation concludes that a discrete critical area is located within those waterbodies or their setbacks.

ii. Because species populations and habitat systems are dynamic, agency consultation shall be required where activities are proposed within two hundred and fifty feet of a designated fish and wildlife habitat conservation area. The administrator shall consult with the WDFW and the U.S. Fish and Wildlife Service to determine the value of the site to federal or state identified endangered, threatened, sensitive, or candidate species; animal aggregations considered vulnerable by the WDFW; and those species of recreational, commercial, or tribal importance that are considered vulnerable by the WDFW. The administrator shall also consult with the WDFW to determine whether the proposed action may affect priority habitat.

iii. In reviewing proposed alterations, the city shall consider the fish and wildlife habitat conservation areas classification in establishing buffer widths, mitigation requirements, and permit conditions. Any decision regarding establishment of buffers, buffer widths, access restrictions, vegetation conservation and restoration requirements, mitigation requirements, or permit conditions outside of shoreline areas subject to the Shoreline Management Act shall be a Type IB procedure subject to Title 19. Lake Chelan and the Chelan River are shorelines subject to the Shoreline Management Act, and setbacks have been assigned in the Section 4.4.3 of this SMP.

b. Critical Area Study. In addition to the general requirements for critical area studies, the required critical area study for any fish and wildlife habitat conservation areas shall include the following:

i. An evaluation of the presence or absence of regulated species. Consultation with the Washington State Department of Fish and Wildlife and review of the priority habitats and species

map for the development site and the area within two hundred and fifty feet of the site shall be required in developing the evaluation.

ii. A description of the nature and extent of the association of regulated species with the habitat conservation area and any critical ecological processes (such as feeding, breeding, resting, nesting and dispersal) occurring within the study area.

iii. A description of regulated species habitat requirements, seasonal range dynamics and movement corridor requirements, and relative tolerance of human activities and the cumulative effects of the previous development or future development in the region.

iv. An analysis of habitat quality, based on relative species diversity and species richness, in the study area.

v. An evaluation of the proposed alteration for its influence on the above wildlife factors and on the measures that are recommended to mitigate the potential degradation of animal and plant populations, reproduction rates, and overall habitat quality over the long term.

vi. Mitigation and management recommendations, including the width of any buffer required to protect habitat and species and any requirements for restoration of the buffer. Any relevant WDFW priority habitat and species management recommendations shall be consulted in developing the mitigation and management recommendations and identifying habitat and species protection measures.

c. The information provided by a critical area study will augment the database for the Chelan area maintained by the city.

4. Development Standards. In addition to the general provisions of this Shoreline Master Program, this chapter, and the requirements of the underlying zone, the following minimum standards shall apply to development activities within and adjacent to the specified fish and wildlife habitat conservation areas.

a. The proposed alteration shall be evaluated for its influence on regulated fish and wildlife habitat and species and for its ability to mitigate the potential degradation of animal and plant populations, reproduction rates, and overall habitat quality over the long term.

b. The following standards shall apply in all fish and wildlife habitat conservation areas:

i. All projects shall comply with the applicable federal, state and local regulations regarding protection of species and habitats identified upon a site.

ii. The administrator shall require the establishment of a buffer for all fish and wildlife habitat conservation areas inside and

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outside of shoreline jurisdiction except for Lake Chelan and the Chelan River when, based on a critical area study, such a buffer is needed to protect functions and values. Such buffers shall remain undisturbed or, where native vegetation has already been disturbed, shall be restored. Buffer widths shall reflect the classification and sensitivity of the habitat and the intensity of activity proposed, and shall be consistent with the most current, accurate, and complete scientific and technical information available.

iii. Shoreline setback widths have been assigned to Lake Chelan and the Chelan River in Section 4.4.3 of this SMP.

iv. Selective pruning of trees for safety is allowed in fish and wildlife habitat conservation area buffers. Where trees pose a significant safety hazard, they may be removed from such buffers. All other tree removal in such buffers shall be minimized through site design, and mitigated when the loss of a tree or trees results in loss of ecological function.

v. Selective pruning of trees for view protection may be allowed in fish and wildlife habitat conservation area buffers, subject to mitigation and enhancement based on an approved critical area study.

vi. Any approved alteration or development in a fish and wildlife habitat conservation area or its buffer shall be required to minimize impacts to native vegetation, including the composition and structure of the native plant community. Where disturbance is unavoidable, the applicant shall restore the area in accordance with the mitigation plan in the critical area study. New plantings shall be maintained in good growing condition and kept free of invasive weeds until well established.

vii. Subdivision of lands within fish and wildlife habitat conservation areas shall be subject to the following:

(A) All division of land shall be accomplished by planned development when a threatened or endangered species is verified to be present.

(B) All division of land shall be accomplished by planned development when twenty-five percent or more of the site falls within one or more designated fish and wildlife conservation areas.

viii. Projects shall be encouraged to participate in habitat preservation projects, such as the WDFW's Backyard Wildlife Sanctuary Program.

c. The following additional standards shall apply in priority habitat and species areas and their buffers:

i. Any uses and activities allowed within priority habitat and species areas shall be limited to those that will not adversely affect or degrade the habitat and threaten critical ecological processes identified in the critical area study. Buildings, roads, agriculture and other uses requiring large land areas shall not be permitted within priority habitat and species areas. Where feasible, corridors of critical habitat that maintain connections between high-quality habitat units shall be preserved.

ii. No development approval shall be granted unless mitigation of adverse effects will be provided that will ensure continuation of baseline populations for all priority habitats and priority species.

iii. Retention of native vegetation shall be encouraged. Native vegetation shall not be removed except in accordance with an approved critical area study. In such cases clearing shall be limited to those areas necessary and disturbed areas shall be replanted with site-appropriate native vegetation.

iv. Access to priority habitat and species areas or their buffers may be restricted in accordance with the findings of a critical area study, mitigation plan, PHS management recommendations or other current, accurate, and complete scientific and technical information available. Access restrictions may include fencing and signs, as needed to ensure protection of habitat functions and values. Restrictions may be seasonal.

d. Provided that adequate regional populations are maintained, development may be allowed in fish and wildlife habitat conservation areas of local importance when only species and habitats of local importance will suffer population declines or interruption of migration routes or reproduction habits; provided, that endemic species are preserved.

D. Geologically Hazardous Areas. The GMA addresses five kinds of geologically hazardous areas: erosion hazard areas, landslide hazard areas, mine hazard areas, seismic hazard areas, and volcanic hazard areas. There are no known mine hazard areas or volcanic hazard areas in the city of Chelan or its UGA.

1. Designation and Classification. The city of Chelan designates the following lands within the city and its urban growth area as geologically hazardous areas, and classifies them as shown below:

a. Erosion hazard areas, as follows:

i. Steep slope areas, as defined in this chapter.

ii. Areas containing soils that have been identified in the Soil Survey of Chelan County, Washington, as "highly erodible land" and "potentially highly erodible land."

iii. Ravines, as defined in this chapter.

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b. Landslide hazard areas, as defined in this chapter. For the purpose of determining whether a critical areas study will be required, the following areas shall be considered potential landslide hazard areas, subject to the critical areas review process in Section 1.030(C):

i. Areas designated as quaternary slumps, earthflows, mud flows, lahars, or landslides on maps published by the U.S. Geological Survey or the Washington State Department of Natural Resources.

ii. Any area with a combination of all of the following:

(A) Slopes greater than fifteen percent; and

(B) Hillsides intersecting geologic contacts with a relatively permeable sediment overlying relatively impermeable sediment or bedrock; and

(C) Springs or ground water seepage.

iii. Any area potentially unstable as a result of rapid stream incision, stream bank erosion, channel migration, or undercutting by wave action.

iv. Slopes that are parallel or sub-parallel to planes of weakness in subsurface materials such as bedding planes, joint systems and fault planes.

v. Areas with slope gradients of forty percent or greater not composed of consolidated rock. These will be of at least ten feet of vertical relief.

c. Seismic Hazard Areas. Those areas in seismic design category D0 on the Seismic Design Category Map for Residential Construction in Washington, Sheet 2.

2. Critical Area Review.

a. Preliminary Evaluation.

i. Erosion Hazard Areas. In determining whether a critical area study is required for development in a known or potential erosion hazard area, the administrator shall, at a minimum, consider the generalized sensitive areas map and any geotechnical assessment, geotechnical report, hydrogeologic evaluation, channel migration zone study, or other special or detailed study that may identify such areas.

ii. Landslide Hazard Areas. In determining whether a critical area study is required for development in a known or potential landslide hazard area, the administrator shall consider the generalized sensitive areas; relevant maps published by the U.S. Geological Survey or the Washington State Department of Natural Resources showing areas designated as quaternary slumps, earthflows, mud flows, lahars, or landslides; and any geotechnical assessment, geotechnical report, hydrogeologic evaluation,

channel migration zone study, or other special or detailed study that may identify such areas.

iii. Seismic Hazard Areas. Until a site-specific map of seismic hazard areas has been adopted, the Seismic Design Category Map for Residential Construction in Washington, Sheet 2 shall be used to make a preliminary identification of such areas for the purposes of determining the need for a critical area study.

b. Critical Area Study. A required critical area study for geologically hazardous areas shall include a geotechnical report, prepared by a qualified professional, adequate to assess any risks of property damage, death, or injury resulting from development of the hazard area and establish mitigation measures. Said geotechnical report shall, at a minimum:

i. Provide a map at a scale of one inch equals two hundred feet showing:

- (A) Contour lines at five-foot intervals; and
- (B) The location of slopes between fifteen and twenty-nine percent, and slopes of thirty percent or greater; and
- (C) Figures for area coverage of each slope category on the site.

ii. Describe site history, including any prior grading, soil instability, or slope failure.

iii. Determine the soil characteristics and geologic, topographic, and hydrologic conditions of the site that might be expected to create a significant hazard due to any geologic hazard and show the location of such hazardous areas. Specifically, include:

- (A) Slope stability studies and opinion of slope stability;
- (B) Erosion vulnerability of site;
- (C) Suitability of on-site soil for fill;
- (D) A summary of all subsurface exploration data, including subsurface soil profile, exploration logs, laboratory or in situ test results, and ground water information and an interpretation and analysis of the subsurface data; and
- (E) Building limitations.

iv. Evaluate the proposed alteration's influence on the safety and stability of structures and any other risks of property damage, death, or injury resulting from development of the hazard area. Factors such as landscape irrigation, storm water generation and the effect of street conveyance and utility placement should be included in the review of potential landslide hazard areas.

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v. Specify appropriate mitigation measures, including design, development, and construction measures that will be taken to eliminate or minimize identified risks. Specify any recommended setbacks and/or buffers. Include specific engineering recommendations for design and any geotechnical special provisions. Specifically, include:

- (A) Proposed angles of cut and fill slopes and site grading requirements;
- (B) Structural foundation requirements and estimated foundation settlements;
- (C) Soil compaction criteria;
- (D) Proposed surface and subsurface drainage; and
- (E) Lateral earth pressures.

vi. Include a soil erosion control plan that minimizes erosion from all disturbed areas with preventive measures described in the City of Chelan Surface Water Design Manual (Chapter 5). Said measures may include silt fences, sedimentation ponds or other measures approved by the administrator. Revegetation shall include hydroseeding or other permanent revegetation measures. Permanent vegetation shall be established within one growing season.

c. If an applicant can demonstrate, through submittal of a geotechnical assessment, that no landslide or erosion hazards exist on site, the requirement for a geotechnical report may be waived by the administrator.

d. Where a geotechnical report has been prepared and approved by the city within the last five years for a specific site, and where the proposed activity and surrounding site conditions are unchanged, said report may be utilized and a new report may not be required. The applicant shall submit a geotechnical assessment detailing any changed environmental conditions associated with the site.

e. In the case of development of an individual lot within a subdivision for which a valid geotechnical report has been prepared and approved by the city within the last five years, and where the only changes in surrounding site conditions are development and mitigation as specified in the report, said report may be utilized and a new report may not be required. The applicant shall submit a geotechnical assessment detailing any changed environmental conditions associated with the site and development affecting the site (e.g., roads, retaining walls, drainage structures, adjacent lots).

3. Development Standards.

a. Any development or other alteration that would pose a foreseeable risk to the public, public or private resources and facilities, or the natural environment is prohibited.

b. Erosion Hazard Areas.

i. In order to prevent or mitigate potential hazards to life, property or the natural environment, development in or adjacent to erosion hazard areas shall be discouraged.

ii. No public or private development will be permitted in erosion hazard areas where mitigation approved by the city and adequate to protect members of the public and public and private resources and facilities from injury, loss of life, property damage or financial losses due to erosion, landslide, seismic events or steep slope failure is not feasible.

iii. Excavation and grading shall be minimized in all erosion and steep slope areas and shall comply in full with Chelan Municipal Code Chapter 70 "Excavation and Grading" of the Uniform Building Code 1988 and as amended.

iv. Ravines and Ravine Sidewalls.

(A) Development in ravines shall be limited to erosion or sedimentation control features and roadway crossings that provide for adequate drainage and that have been approved by the public works director of the city.

(B) Proposed alterations that are adjacent to ravine sidewalls shall maintain a building setback from the top of the ravine of no less than twenty-five feet. All drainage within the setback shall be directed away from the ravine sidewall.

(C) A twenty-five-foot undisturbed buffer of native vegetation shall be established from the top, toe, and sides of all ravine sidewalls and bluffs.

(D) The administrator may approve a reduction in the width of the required buffer, to a minimum width of ten feet, when an approved critical area study demonstrates all of the following:

(1) The development proposal will result in minimal risk of soil instability; and

(2) Special mitigation measures regarding design, construction, and maintenance can reasonably be employed to minimize adverse environmental impacts associated with the proposal; and

(3) The proposal represents minimal disruption of existing native vegetation.

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(E) The administrator may require increased buffers if an approved critical area study indicates such increases are necessary to mitigate geologic hazards, or as otherwise necessary to protect the public health, safety, and welfare.

v. Development may occur in steep slope areas only after the following standards have been met:

(A) Development must be located to minimize disturbance and removal of vegetation and also to protect the most sensitive areas (including areas of erosive soils, areas at risk of erosion by wind or water, and areas of dense vegetation) and retain open space. The use of continuous greenbelt areas shall be encouraged; and

(B) Structures must be clustered where possible to reduce disturbance and maintain natural topographic character. Common access driveways shall be considered as a means of reducing construction disturbances; and

(C) Where possible, structures must conform to the natural contour of the slope and foundations must be tiered to conform to existing topography of the site.

vi. Unless a grading plan prepared by a licensed civil engineer is provided and approved by the administrator, disturbance of a development site shall generally not exceed the following for the slope categories indicated:

Maximum Amount of Slope that may be Disturbed	
Slope Category	Factor
Slopes 30 – 40% (60% of the site or more)	0.60
Slopes 40% + (also see landslide hazard area)	0.30

The overall amount of disturbance allowed on development sites which have any combination of the above slope categories shall be determined by the following formula:

[Square footage of the area within the slope category x slope factor] = Total amount of allowable disturbance for that slope classification.

The total amount of allowable disturbance for the site is the sum of all the allowable disturbance totals for each slope category.

c. Landslide Hazard Areas. Hillsides containing or within two hundred and fifty feet of landslide hazard areas shall be altered only when the administrator concludes, based on environmental information provided by a qualified professional, that:

i. There will be no increase in surface water discharge or sedimentation to adjacent properties; and

ii. There will be no decrease in slope stability on adjacent properties; and

iii. Either:

(A) There is no hazard as proven by evidence of no landslide activity in the past in the vicinity of the proposed development and a quantitative analysis of slope stability indicates no significant risk to the proposed development or to the health or safety of humans or the environment of the subject property or adjacent properties; or

(B) The landslide hazard area can be modified or the proposed development can be designed so that the landslide hazard is eliminated or mitigated so that the site is as safe as a site without a landslide hazard; or

(C) The proposal is so minor as not to pose a threat.

d. Seismic Hazard Areas. All development activities in seismic hazard areas shall conform to the applicable building code.

E. Frequently Flooded Areas.

1. Designation. The city of Chelan designates the following lands within the city and its urban growth area (UGA) as frequently flooded areas:

a. All areas of special flood hazard indicated in the Flood Insurance Study for the City of Chelan, Washington, and the accompanying flood insurance rate maps, as revised or amended; and

b. Any areas of special flood hazard indicated in the Flood Insurance Study for Chelan County, Washington, and the accompanying flood insurance rate maps, as revised or amended, that are within the city or its UGA; and

c. All additional areas of special flood hazard identified by any special or detailed study.

2. Identification. Critical area review shall be required prior to development in any area that appears to be a frequently flooded area to determine whether the proposed development is within an area of special flood hazard. The critical area review shall be conducted using applicable existing flood insurance studies, flood hazard boundary maps, flood insurance rate maps, special or detailed studies, and information prepared by the Federal Emergency Management Agency.

3. Development Standards. All development must comply in full with the city's flood hazard areas provisions, Chapter 15.10, as those provisions may be amended.

1.060 Warning and disclaimer of liability.

The degree of hazard protection required by this chapter is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Catastrophic natural disasters can, and will, occur on rare occasions. This chapter does

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not imply that land outside the critical areas or activities permitted within such areas will be free from exposure or damage. This chapter shall not create liability on the part of the city, and officers or employees thereof, for any damages that result from the reliance on this chapter or any administrative decision lawfully made hereunder.

1.070 Administration.

The administrator is directed to administer the provisions of this chapter, including attaching such conditions to the granting of any approval under this chapter as may be deemed necessary to protect critical areas, and may appoint other employees as may be necessary to assist in its administration. The city shall adopt and revise, as required, such forms and instructions as are necessary or appropriate to serve the public and carry out the provisions of this chapter.

1.080 Civil penalties and enforcement.

The administrator shall have authority to enforce this chapter, and any rule or regulation adopted, and any permit, order or approval issued pursuant to this chapter against any violation or threatened violation thereof. The administrator is authorized to issue violation notices and administrative orders, levy fines, and/or institute legal actions in court. Recourse to any single remedy shall not preclude recourse to any of the other remedies. Each violation of this chapter, or any rule or regulation adopted, or any permit, permit condition, approval or order issued pursuant to this chapter, shall be a separate offense and in the case of a continuing violation, each day's continuance shall be deemed to be a separate and distinct offense. All costs, fees, and expenses, including reasonable attorney's fees incurred in connection with enforcement actions, may be recovered as damages against the violator.

Any person who undertakes any activity within a critical area without first obtaining an approval required by this chapter, except as specifically exempted, or any person who violates one or more conditions of any approval required by this chapter, or of any cease and desist order issued pursuant to this chapter, shall incur a civil penalty assessed for each violation. In the case of a continuing violation, each permit violation and each day of activity, without a required approval, shall be a separate and distinct violation. The civil penalty assessed shall be assessed at a rate of fifty dollars per day, per violation. The penalty provided shall be appealable to the city hearing examiner in accordance with procedures established in Section 2.15.030. Any appeal to the city hearing examiner shall be in writing and submitted within ten days of the applicant's receipt of the administrator's civil citation issued pursuant to this subsection. Any further appeal of the hearing examiner's decision shall be in accordance with the provisions of Section 1.040.

1.090 Criminal penalties.

As an alternative to any other judicial or administrative remedy provided in this chapter or by law or other ordinance, any person who willfully or knowingly violates any provision of this chapter, or any order issued pursuant to this chapter, or by each act

of commission or omission procures, aids, or abets such violation is guilty of a misdemeanor and, upon conviction thereof, shall be punished as set forth in Section 1.24.010.

1.100 Critical areas review checklist.

The City's critical areas review checklist is adopted as a part of this chapter and must be submitted by an applicant and completed by the administrator in a timely manner as a part of all proposed alterations in the vicinity of known or potential critical areas.

Appendix C: City of Chelan Shoreline Public Access Plan

This City of Chelan Shoreline Public Access Plan documents how the City has planned for parks and recreation in the community, particularly along Lake Chelan and the Chelan River. This plan is prepared pursuant to WAC 173-26-221 (4)(c), including identifying specific public needs and opportunities to provide public access through an open public process. This plan is based on the *City of Chelan Comprehensive Land Use Plan, Park & Recreation Comprehensive Plan 2008-2014, Lakeside Trail Feasibility Study, Lord Acres Subarea Plan, and Don Morse Park Shoreline Study & Master Plan*. Also considered is the *Lake Chelan Valley Trail Plan*, contained in an appendix to the City's *Park & Recreation Comprehensive Plan*. Additionally, the Shoreline Public Access Plan addresses recently approved or proposed public access features developed in conjunction other public agencies or with private development. The City's efforts address a variety of shoreline access opportunities and circulation for pedestrians, bicycles, and vehicles between shoreline access points, and include recommended projects and actions.

1. Shoreline Public Access Laws and Rules

Public access refers to the ability of the general public "to reach, touch, and enjoy the water's edge, to travel on the waters of the state, and to view the water and the shoreline from adjacent locations" (WAC 173-26-221(4)(a)). Public access can be physical access such as via a trail or park and/or visual such as a view corridor from a road.

Public access is a preferred use per the Shoreline Management Act (RCW 90.58.020). The Shoreline Master Program (SMP) Guidelines require that public access be provided with most new development, except that more flexibility is allowed where there is a coordinated public access planning process (WAC 173-26-221(4)(c)). When public access is addressed in a SMP, it implements the "public trust doctrine" which is a common law principle holding that "the waters of the state are a public resource owned by and available to all citizens equally for the purposes of navigation, conducting commerce, fishing, recreation and similar uses." While the doctrine "protect(s) public use of navigable water bodies below the ordinary high water mark," the doctrine "does not allow the public to trespass over privately owned uplands to access the

tidelands.”¹ Generally, public or private landowners are limited in terms of liability when there are unintentional injuries to any public access users based on state law at RCW 4.24.210.

2. Shoreline Recreation Goals and Plans

The City of Chelan’s Comprehensive and *Comprehensive Park & Recreation Plan* goals and policies include:

- Implement the goals, policies and facilities identified within the City of Chelan Recreation Department, Parks Division: Comprehensive Plan, the Lakeside Trail Feasibility Study and the Don Morse Park Shoreline Study, and Northshore Pathway Feasibility Study. (based on Comprehensive Plan Recreational Development, Goal 2, Policy 1; Northshore Pathway added with this Shoreline Public Access Plan)
- Allow public and private development of adequate camping, boat launching, docking and moorage facilities, marinas, and other water-related recreational opportunities on Lake Chelan and the Columbia River. (Comprehensive Plan Open Space/Recreation Goal 3, Policy 3)
- Maximize the use of parks, schools, recreation and open space resources within the City by connecting them with a coordinated system of trails. (Comprehensive Parks & Recreation Plan PRP 1.2)
- Continue efforts to develop trails and pathways that would provide connections among recreation sites and community features. Specifically, pursue development of the Lakeside Trail and Northshore pathway. (Comprehensive Plan Transportation Element Policy 4.4)
- Provide parks and recreation facilities that are inclusive and accessible to all of the population regardless of age or physical ability. (Comprehensive Parks & Recreation Plan PRP 1.8)
- Require on-site (or nearby off-site) development of recreation facilities or appropriate and usable park land in conjunction with the approval of any development project (Comprehensive Parks & Recreation Plan PRP 2.3).
- Encourage shoreline uses and activities to provide their own shoreline public access or to contribute to the implementation of the City of Chelan Shoreline Public Access Plan. (Developed with this Shoreline Public Access Plan)
- Require development projects along designated trail routes to be designed to incorporate the trail as part of the project. (Comprehensive Parks & Recreation Plan PRP 2.4)

¹ See the State of Washington’s Department of Ecology’s website at: http://www.ecy.wa.gov/programs/sea/sma/laws_rules/public_trust.html. Accessed March 24, 2010.

In addition, based on the *Lord Acres Subarea Plan*, the City developed regulations applicable citywide that address the provision of recreation facilities with new development (CMC 17.56 Conditional Use Permit, Parks and Community Waterfront Parks). While these are not shoreline-specific, the standards add to the recreation facilities in the community, and depending on the development location, may occur in the shoreline jurisdiction.

3. Parks and Recreation Plans and Public Review Process

The City’s Parks and Recreation goals and plans have been created with extensive public review. Public review opportunities have included citizen committees, open houses, surveys, public meetings and hearings. Notices were made to a wide variety of agencies as well as citizens.

Parks Documentation and Process	Description
Plans	<p>Comprehensive Land Use Plan. Adopted 2009, including parks and recreation goals and policies.</p> <p>Park & Recreation Comprehensive Plan 2008-2014. Adopted 2007, including goals and policies, current and future facilities, and a capital improvement program.</p> <p>Lakeside Trail Feasibility Study, Adopted 2000. Includes corridor analysis, design guidelines and concepts, costs and maintenance, potential impacts and benefits, and next steps for permitting, funding, and other similar topics.</p> <p>Northshore Pathway. April 5, 2000. Referenced in City Comprehensive Plan and in this Shoreline Public Access Plan. Provides analysis, design guidelines, design concepts and cross sections and other information.</p> <p>Lake Chelan Valley Trail Plan. 1993. Referenced in City Comprehensive Plan. Contains and inventory and plans.</p> <p>Don Morse Park Shoreline Study (2002) and Master Plan (2007). Identifies current conditions and planned facilities.</p> <p>Lord Acres Subarea Plan, Adopted January 2009. Includes Parks and Recreation analysis and community and waterfront park regulations.</p>
Public Involvement Process	<p>Comprehensive Plan: Planning Commission meetings and legislative hearings.</p> <p>Parks and Recreation Plan: Meetings with user groups, open houses, parks and recreation survey, news ads, public meetings and workshops, Parks and Recreation Advisory Board meetings, and legislative hearings.</p> <p>Northshore Pathway. The City, County, Washington State Department of Transportation and the Lake Chelan Public Trails Association contributed to the study. Public involvement efforts were scheduled following completion of the study.</p> <p>Lake Chelan Valley Trail Plan. Outreach included a public meeting and a public survey.</p> <p>Don Morse Park Shoreline Study and Master Plan: Public</p>

Parks Documentation and Process	Description
	meetings and workshops, Parks and Recreation Advisory Board meetings, and legislative hearings. Also a topic of the Parks and Recreation Plan. Lord Acres Subarea Plan. Open Houses, Steering Committee, Planning Commission meetings and legislative hearings.

In addition to the public involvement activities the City held with its parks and trails plans, additional public outreach efforts were conducted for this Shoreline Public Access Plan. Two public workshops were held, one in April and one in June 2010. The meetings were noticed via over 2,000 utility billing notices, radio ads, emails, and posting at public offices and on the City’s website. At the meetings and through questionnaires, comments were taken on shoreline public access inventories including public access opportunity sites and corrections to inventories. Recommendations to fill gaps in shoreline public access were discussed. Current and proposed policies were distributed for review.

4. Current and Future Facilities in Shoreline Jurisdiction

Public access consists of view corridors, open space and parks. View corridors are prevalent along roadways paralleling the water, and from higher elevations above the lake including in the Lord’s Acres vicinity. Parks and open space in shoreline jurisdiction total about 48 acres, with about 19 acres along the Chelan River and about 29 acres along Lake Chelan. Based on the shoreline inventory, there are 14 recreation facilities on Lake Chelan within the City and Urban Growth Area (UGA) as follows:

- Boat Launch: 4
- Boating Facility: 1
- Community Dock/Marina: 5
- Marina:3 (includes one approved marina not yet constructed)
- RV camp: 1

The City has planned for its parks in its *Parks and Recreation Comprehensive Plan 2008-14*. That Plan identifies the following existing City and non-City facilities in the shoreline vicinity:

- Athletic Field Complex – This park is located on the southern most portion of the downtown section of Chelan and is bordered by the Chelan River on one side and residential areas on three sides. This property is owned by the Chelan County PUD and leased to the City for recreation purposes. It is used by leagues and schools, and provides fields for a variety of sports as well as a children’s play area.

- Centennial Park – This park is located on Third Street on the south shore of Lake Chelan. This park was designed for passive use and taking advantage of views of Lake Chelan and the Chelan Valley. The park contains picnic tables, benches and limited duration parking.
- Don Morse Park – This park is located on the north shore of Lake Chelan and is bordered by Highway 150, Lakeshore RV Park, Lakeshore Marina and Lake Chelan. Facilities at the site include: an 105,840 square foot swimming area with 1,350 feet of buoy line and beach bulkhead containing three stair areas and ramp, two docks, 2,000 square foot shallow pool with sand beach, day-use lawn area with: picnic tables, picnic shelters, tennis, basketball and volleyball courts, a skate park, a children’s play area, a concession and restroom building, walkways, a golf putting course, go-cart race track and a sports equipment rental office.
- Lakeshore Marina – This park is located on the north shore of Lake Chelan and is bordered by Highway 150, Don Morse Memorial Park, Campbell’s Resort and Lake Chelan. Public moorage accommodates 68 boats. The park also includes a launch ramp. Additional facilities include a restroom building, boater pump-out structure, a storage building, and breakwater.
- Lakeshore RV Park – This park was designed primarily for recreational vehicle use and has water, wastewater, cable, and power hookups for 165 recreational vehicles. The park includes restroom/shower buildings and picnic tables.
- Lakeside Park – This parcel of land is located on the south shore of Lake Chelan. Facilities at the park include: 17,500 square feet of sandy beach and swimming area, picnic tables, volleyball and basketball courts, and a restroom.
- Lakeside Trail – The City is currently developing the first two phases of the Lakeside Trail. This is a Primary Trail that when completed will extend from Lakeside Park, along the southern shore of Lake Chelan, through downtown and up the north shore to the City limits. The trail will extend 2.2 miles when complete.
- Riverwalk Park and Trail – The Chelan County Public Utility District owns and maintains the one-mile trail. The trail loops around the Chelan River and is located in the downtown core. The trail features benches, overlooks, and other amenities.

The City of Chelan’s *Parks and Recreation Comprehensive Plan 2008-14* has calculated the demand for parks and trails citywide through 2014 based on levels of service:

- Mini, neighborhood, and community parks: demand for 24 acres
- Trails, pathways, bikeways: demand for 7.1 miles a portion of which is to be satisfied by the Lakeside Trail.

In addition to the *Parks and Recreation Comprehensive Plan*, the City has developed a *Lakeside Trail Feasibility Study* (City of Chelan 2000). As described above, the City has begun implementation of the 2.2-mile trail with a 0.5-mile segment.

Including both existing and proposed trails, the shoreline jurisdiction is anticipated to contain 8,225 linear feet of trails. Considering the whole Lakeside Trail, including the portions of the trail outside the 200-foot shoreline jurisdiction, the trail length is anticipated to equal 13,200 feet (2.5 miles).

The City has implemented its parks, recreation, and trails plans through its capital facility plans, coordination with other agencies, and through private development projects that connect to public access features. An example of private development projects implementing public access includes the Sunset Condominiums and Marina project approved in 2007. This project will include a 75 double slip marina and floating breakwater connected to the public trail system.

An example of agency coordination includes the City of Chelan's efforts to provide recommendations to the Chelan County PUD on the Lakeside Water Street Neighborhood Access Plan. The City Council has accepted the following recommendations and plan for transmittal to the PUD:

- Continue public access without restriction – Take any and all measures to keep the area open for public access by the public. The area is best known as a swim area and should be preserved for that activity. There should be limitations on canoe, kayak and other manpowered vessels.
- Arrange floating buoy boat tie downs – Place the tie-down boat buoys so as not to restrict or constrict the swim area for recreational swimmers or lap/distance swimmers. It should also preserve the open view of the lake whenever possible.
- Allow existing docks – no new private docks to be built. Recommendation only as the Corp of Engineers, City and PUD will determine through the Shoreline Management Plan when adopted.
- New Docks - Allow for at least one and possibly more public docks along SR 97A. These docks would be for swimming and not motorized vessels. These docks could also be used for non-motorized vessels such as kayaks, canoes, row boats, etc.
- Floating swim dock – Place a floating swim dock in swim area. This recommendation would be with future implementation if needed.
- Chain blocking access – Remove the posts and chain presently blocking the area and place park bench in its place.

- Placement of buoy lines in swim area – This could be a future recommendation dependent on swim use and vessel conflicts.
- Signage – Review the present signage to provide a better explanation of area use.
- Buoy Signage – Place signage on buoys at entrance of area denoting swim area and local boat moorage only.
- Additional buoy markers – Place additional buoys in the area of the water entrance denoting “no wake”.

5. Community Parks and Recreation Standards

The City’s *Parks and Recreation Comprehensive Plan* includes level of service standards for different facilities community wide. These standards were considered in the development of specific parks and recreation improvements for the current and future population in Chelan’s city limits and urban growth area.

Facility Type	Level of Service Standard
Parks and Open Space	acres/1000 population
Mini	0.25
Neighborhood	2
Community	7
Regional	6
Open Space Areas	0.5
Trails	miles/1000 population
Trails	0.5
Pathways	0.25
Bikeways	0.5

6. Public Access Analysis & Objectives by Shoreline Reach

Public access conditions are presented in order of numbered reaches as mapped in the “Shoreline Inventory and Analysis Report for Shorelines in Chelan County and the Cities of Cashmere, Chelan, Entiat, Leavenworth, and Wenatchee” dated March 2009.

Current shoreline facilities are based on shoreline public access inventory maps included in Section 9. Planned shoreline facilities are based on adopted City plans. It should be noted that City plans are fairly detailed for land within the City limits, but there is a deficiency of planning particularly on the north shore between Lakeside RV Park to Rocky Point. Countywide shoreline analysis maps prepared for public workshops show that most residences on the north shore are more than 1.5 miles from a current or future shoreline park or trail whereas there is

better coverage on the south shore. As a result, the City of Chelan Shoreline Public Access Plan includes two proposed facilities to address the gap on the north shore:

- Implement the Northshore Pathway Feasibility Study which promotes a trail along the SR 150 right of way between Downtown Chelan and Manson. This trail meanders inside and outside of shoreline jurisdiction, but provides a continuous visual access even when outside of shoreline jurisdiction.
- At Dietrich Road right of way in the shoreline jurisdiction, add a fishing pier with ADA access, vault restroom, and a small parking area.

Waterbody and Reach	Current Shoreline Facilities	Planned Shoreline Facilities	Discussion
Lake Chelan			
CCH L1	Visual access, SR 150.	No adopted plans. The Northshore Pathway Feasibility Study identifies a proposed trail that parallels SR 150 and extends between downtown Chelan and Manson.	This six-mile trail, known as the Northshore Pathway, would be a paved and lighted urban multi-use trail, separated from the highway by a physical barrier such as a wall, fence or curb. Large lot residential uses.
CCH L2	Visual access, SR 150. Two community docks/marinas.	See above.	See above. Large lot residential uses.
CCH L3	One community dock/marina	None in shoreline. Northshore Pathway along SR 150.	Developed residential parcels.
CCH L4	Boat launch	None in shoreline. Northshore Pathway along SR 150.	Developed Resort.
CCH L5	None	None in shoreline. Northshore Pathway along SR 150.	Developed residential parcels.
CCH L6	None	None in shoreline. Northshore Pathway along SR 150.	Developed residential parcels.

Waterbody and Reach	Current Shoreline Facilities	Planned Shoreline Facilities	Discussion
CCH L7	Dietrich Road right-of-way; visual access	Fishing pier with ADA access, vault restroom, small parking area.	City Parks and Recreation Plan and Lord Acres Subarea Plan identify a potential neighborhood park in the vicinity of Decatur Road, outside of the shoreline jurisdiction. Shoreline Public Access Plan includes fishing pier proposal. Would require small acquisition adjacent to right-of-way for parking and coordination with partner agencies where appropriate. Developed residential parcels.
CCH L8	None	None	Vacant property.
CCH L9	None	None	Developed residential parcels.
CCH L10	None	None	Developed residential.
CCH L11	Lakeshore RV Park	None	
CCH L12	Don Morse Park; Boat launch; Marina	See Don Morse Park Master Plan & Shoreline Study	
CCH L13	Community Dock/Marina	Lakeside Trail	Developed waterfront area. City Parks and Recreation Plan identifies future route of Lakeside Trail connecting Don Morse Regional Park and Lakeside City Park through this area.
CCH L14	Visual Access (local street); Community Park	None	Area includes riverfront park at west end of Wapato Avenue.
CCH L15	Visual Access (2 local streets)	None	Public land (government use)
CCH L16	Visual Access (local street);	None	Developed downtown property.
CCH L17	Visual Access (local street)	Potential ROW	Existing land use indicates several waterfront lots are government-owned.
CCH L18	Visual Access (local street); Chelan PUD Athletic Complex	None	Existing recreational facility.

Waterbody and Reach	Current Shoreline Facilities	Planned Shoreline Facilities	Discussion
CCH L19	None	Riverwalk Park Trail	City Parks and Recreation Plan identifies future portion of Riverwalk Park Trail through this area.
CCH L20	Boat launch; River Walk Park	Trail; Potential ROW	City Parks and Recreation Plan identifies future route of Riverwalk Park Trail through this area.
CCH L21	None	None	Developed urban area.
CCH L22	River Walk Park	None	Existing recreational facility.
CCH L23	None	None	Developed urban area.
CCH L24	River Walk Park	None	Existing recreational facility.
CCH L25	Visual Access (local street)	Trail	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area.
CCH L26	Visual Access (local street)	Trail	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area.
CCH L27	Visual Access (local street); Centennial Park; PUD Mini-park	Trail	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area.
CCH L28	Visual Access (local street and US 97); Community dock	Trail	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area.
CCH L29	Visual Access (US 97); Boating facility;	Trail	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area.
CCH L30	Visual Access (US 97); Marina	Trail, Future Marina	Existing recreational facility. City Parks and Recreation Plan identifies future route of Lakeside Trail through this area. Approved development includes Sunset Marina and Breakwater with connection to Trail.
CCH L31	Visual Access (US 97)	Trail	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area.

Waterbody and Reach	Current Shoreline Facilities	Planned Shoreline Facilities	Discussion
CCH L32	Visual Access (US 97); Private boat launch.	Trail; Proposed Lakeside Water Street Neighborhood Access Plan	City Parks and Recreation Plan identifies future route of Lakeside Trail through this area. See discussion of Water Street Neighborhood Access in the "Current and Future Facilities in Shoreline Jurisdiction" section above.
CCH L33	Visual Access (local streets)	Trail; Lakeside Water Street Neighborhood Access Plan	Developed residential area. City Parks and Recreation Plan identifies future route of Lakeside Trail through this area. See discussion of Water Street Neighborhood Access in the "Current and Future Facilities in Shoreline Jurisdiction" section above.
CCH L34	Visual Access (US 97); Lakeside City Park; Boat Launch	None	Existing recreational facilities.
CCH L35	Visual Access (US 97)	None	Highway immediately adjacent to lake.
CCH L36	Visual Access (US 97)	None	Large lots of city-owned property adjacent to shoreline jurisdiction.
CCH L37	Visual Access (US 97); Private boat launches	None	Developed residential.
Chelan River			
CCH R01	None	None	Public ownership
CCH R02	None	None	Public ownership
CCH R03	None	None	Public ownership
CCH R04	None	None	Public ownership
CCH R05	None	None	Public ownership
CCH R01R	None	Trail	City Parks and Recreation Plan identifies future portion of Riverwalk Park through this area.
CCH R01L	None	None	Public ownership
CCH R02L	None	None	Public ownership
CCH R03L	Visual Access	None	Public ownership
CCH R04L	Chelan PUD Athletic Complex	None	Existing recreational facility.

7. Future Opportunities

As part of the Chelan County Shoreline Public Access planning process, agencies and citizens were asked their thoughts on public access opportunities. The opportunities were noted on maps of the whole county. Several opportunities were noted in the City of Lake Chelan, some of which are included in adopted or draft plans and some of which can be considered in the future as the City updates its parks and recreation plans.

Opportunity/Observation	Description	Status
Lake Chelan		
#1 Observation	Retain views; too many new trees planted (26); why?	City considering comments.
#8 Opportunity	Lord Acres Vicinity. Consider Northshore Pathway Plan	Incorporated into this Shoreline Public Access Plan
#9 Opportunity	Lakeside short-term parking for unloading/loading boats & picnicking supplies; Needs more public parking. Geese are an issue.	City considering parking needs.
#10 Opportunity	USFS, Coordinate Lakeside Trail.	City and USFS to coordinate to implement adopted Lakeside Trail Plan.
#11 Opportunity	Downtown Plan Public Dock	Included in Draft Downtown Plan; adoption is pending.
#12 Opportunity	Parking for boat launch at high school.	City considering parking needs.
#40 Opportunity	PUD ownership; public designation in Comprehensive Plan	
Chelan River		
#13 Opportunity	PUD Reach 1 Trail Chelan River Access	

8. Implementation

The City will implement its shoreline public access plan through implementation of adopted parks and recreation plans and city budget as well as application of standards. The City may also revisit its shoreline public access plan during periodic reviews of the SMP, anticipated every seven years. (RCW 90.58.080)

Capital Improvement Plans

The City shall implement its capital investment plan consistent with the Park & Recreation Comprehensive Plan 2008-2014 and the City budget.

In addition the City shall implement the following project:

Authors & Contributors: BERK in association with ICF, The Watershed Company and Project Groundwork

Proposal: Add a fishing pier with ADA access, vault restroom, and a small parking area.

Location: Dietrich Road right of way in the shoreline jurisdiction

Preliminary Planning Level Cost: \$91,000 to \$153,000.²

Policies and Standards

The City shall promote and implement shoreline public access consistent with the following plans:

- City of Chelan Comprehensive Land Use Plan
- Don Morse Park Shoreline Study & Master Plan
- Lake Chelan Valley Trail Plan
- Lakeside Trail Feasibility Study
- Lord Acres Subarea Plan
- Northshore Pathway Feasibility Study
- Park & Recreation Comprehensive Plan 2008-2014

The development of parks and trails in terms of uses, projects, and design standards shall be consistent with the above listed plans.

The City shall apply its adopted policies to developments proposed in shoreline jurisdiction. Section 2 above lists key policies.

The City shall apply its municipal code to ensure that there is sufficient parks and recreation to meet the demands of new development. Applicable codes include but are not limited to the following:

- Chapter 14.06 Environmental Procedures and Policies
- Title 16 Land Divisions
- Chapter 17.56: Conditional Uses including 17.56.290 Parks and 17.56.300 Community Waterfront Parks

In applying plans, policies, and regulations regarding Shoreline Public Access, the City's primary intent is to encourage shoreline uses and activities to provide their own shoreline public access; the secondary intent is that if providing shoreline public access is not possible

² The estimate includes some site restoration, mitigation plantings along with design and construction engineering, permitting assistance and Washington State sales tax. The cost estimates do not include land acquisition.

under the circumstances that a contribution be made to the implementation of the City of Chelan Shoreline Public Access Plan, rather than require individual shoreline uses and activities independently provide for off-site mitigation

The Shoreline Master Program update also contains public access and recreation standards designed to be compatible with and support the shoreline public access plan.

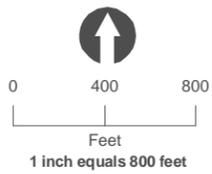
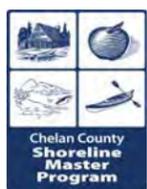
9. Supporting Maps

The following attached maps are provided for reference and in support of the shoreline public access plan:

- Public Access maps prepared for the Shoreline Master Program update, July 20, 2011
- Lakeside Trail Study Corridor Map, 2000
- Don Morse Park Master Plan, 2007
- Public Access and Recreation map identifying opportunities, June 2010



Public Access Chelan 01



July 20, 2011
Data: WA DOE,
WA OFM, TPL,
TNC, Chelan County,
WA State Parks, WNF

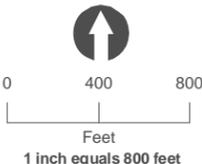
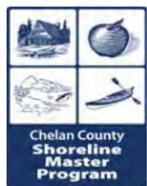
Public Access, Parks, and Other Public Lands

- | | | | |
|------------------------|----------------------|----------------------------------|-----------------|
| Boat Launch | Picnic Area | Fishing Easement | Hiking Trails |
| Campground | RV Camp | Fishing Easement with Boatlaunch | Proposed Trails |
| Comm. Dock/Marina | Ski Area | Parks | Highways |
| Fishing Access | SnoPark | Other Public and Protected Lands | Railroads |
| Horse Camp | Trailhead | Potential ROW Access | Parcels |
| Marina | Visitor Info Site | Public Access Easements | Jurisdiction |
| Other Boating Facility | Winter Rec. Facility | Vacated Streets | City Boundaries |
| | | View Corridors | UGA Boundaries |

Shoreline jurisdiction boundaries depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.



Public Access Chelan 02



July 20, 2011
Data: WA DOE,
WA OFM, TPL,
TNC, Chelan County,
WA State Parks, WNF



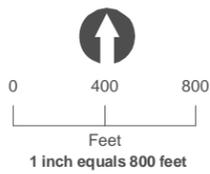
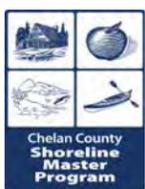
Public Access, Parks, and Other Public Lands

- | | | | |
|------------------------|----------------------|----------------------------------|-----------------|
| Boat Launch | Picnic Area | Fishing Easement | Hiking Trails |
| Campground | RV Camp | Fishing Easement with Boatlaunch | Proposed Trails |
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Public Access Chelan 03



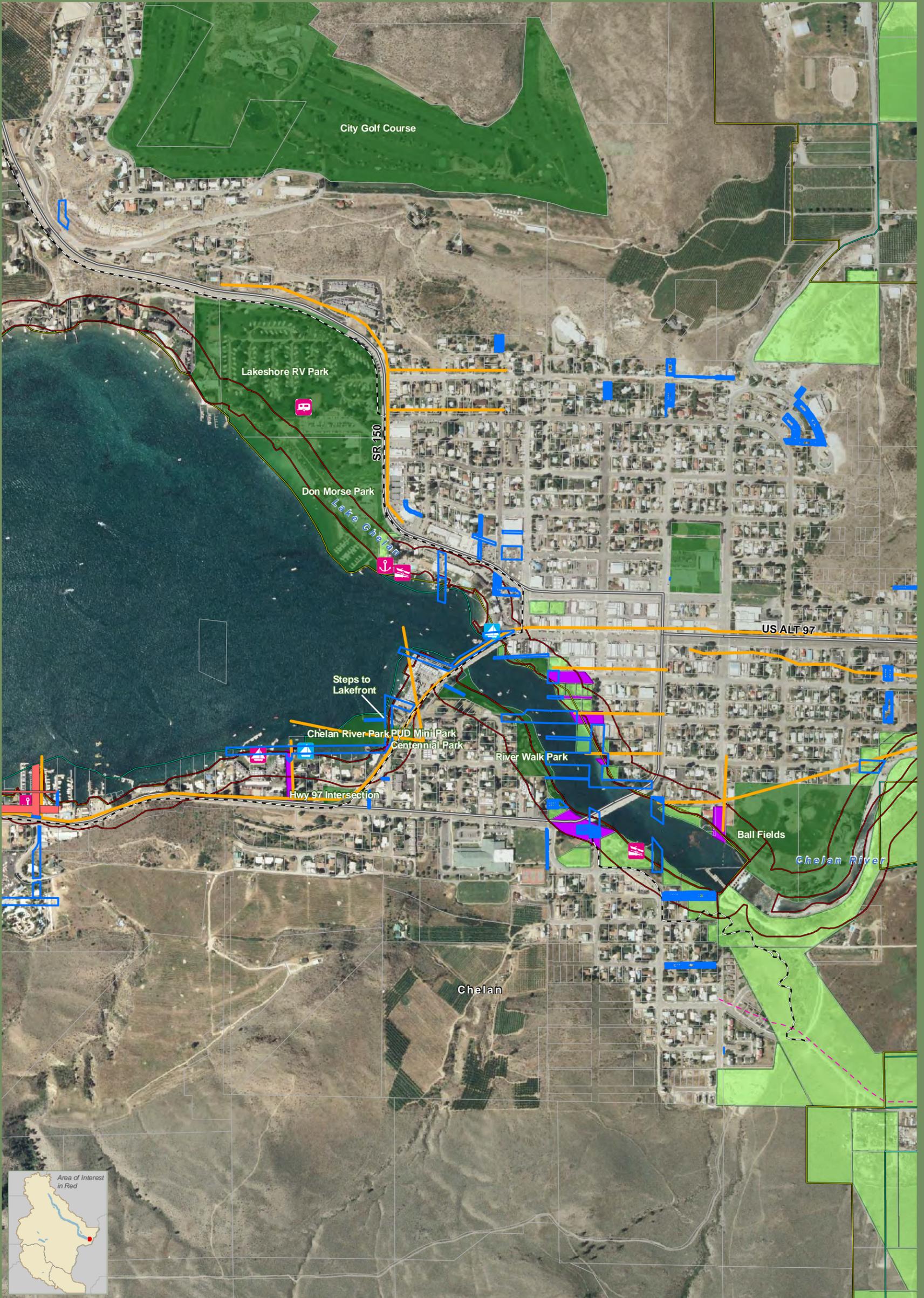
July 20, 2011
Data: WA DOE, WA OFM, TPL, TNC, Chelan County, WA State Parks, WNF



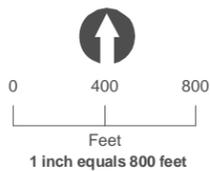
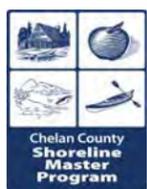
Public Access, Parks, and Other Public Lands

- | | | | |
|------------------------|----------------------|----------------------------------|-----------------|
| Boat Launch | Picnic Area | Fishing Easement | Hiking Trails |
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Public Access Chelan 04



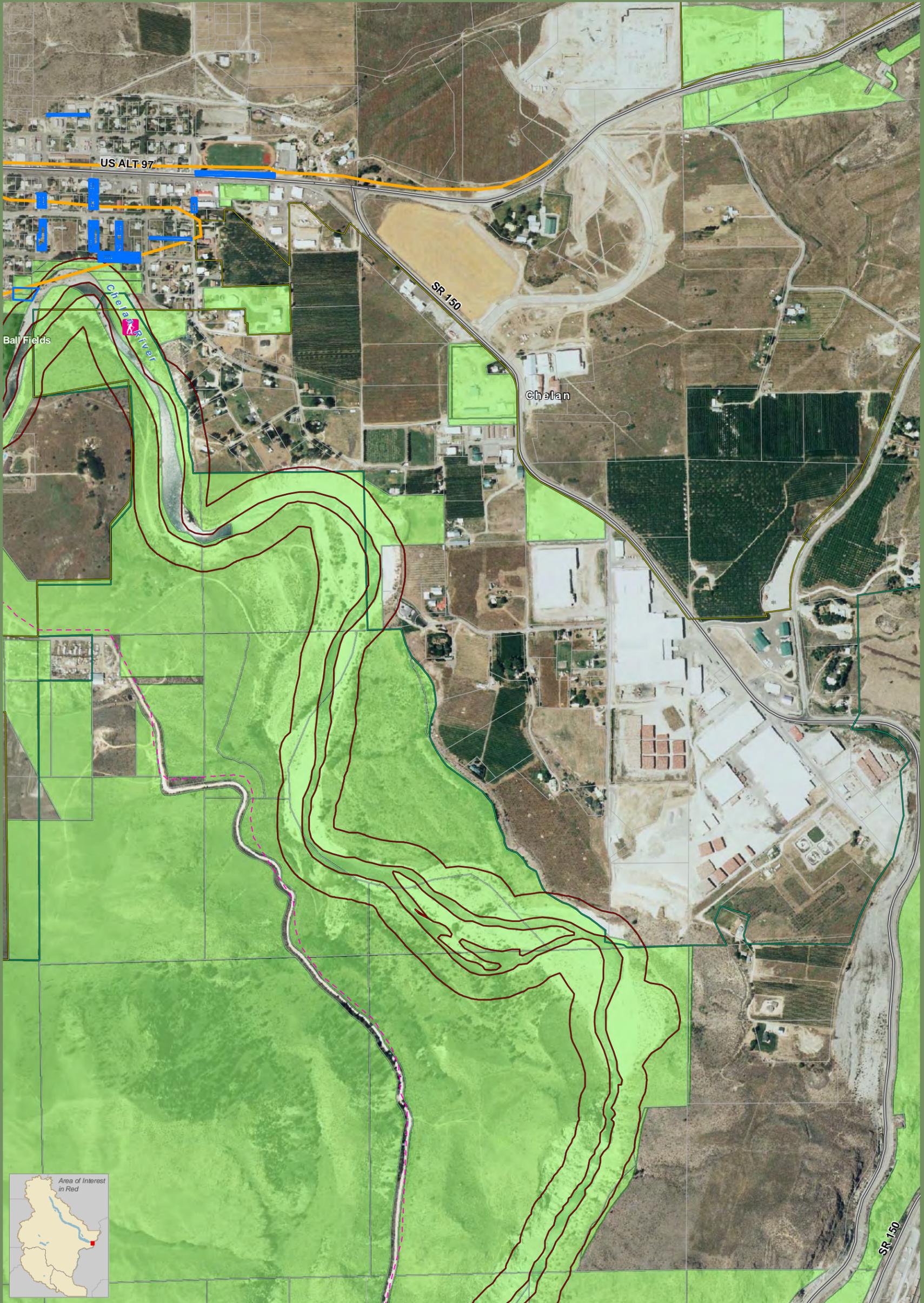
July 20, 2011
Data: WA DOE,
WA OFM, TPL,
TNC, Chelan County,
WA State Parks, WNF



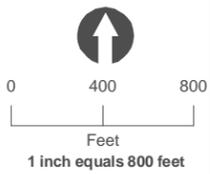
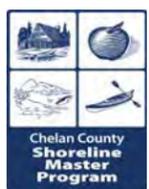
Public Access, Parks, and Other Public Lands

- | | | | |
|------------------------|----------------------|----------------------------------|-----------------|
| Boat Launch | Picnic Area | Fishing Easement | Hiking Trails |
| Campground | RV Camp | Fishing Easement with Boatlaunch | Proposed Trails |
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Public Access Chelan 05



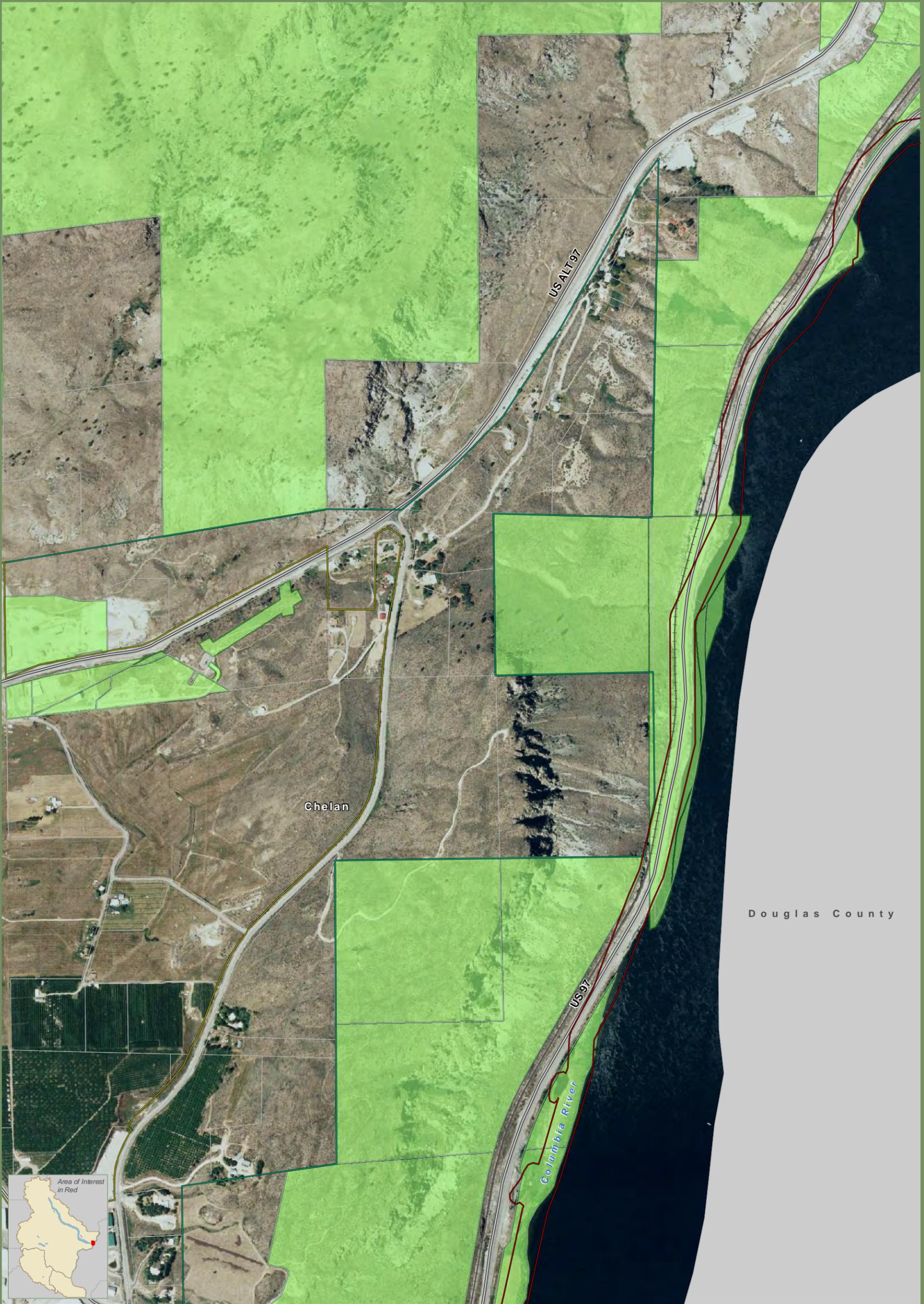
July 20, 2011
Data: WA DOE,
WA OFM, TPL,
TNC, Chelan County,
WA State Parks, WNF



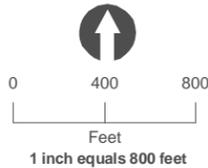
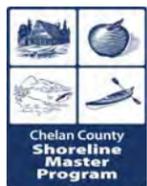
Public Access, Parks, and Other Public Lands

- | | | | |
|------------------------|----------------------|----------------------------------|-----------------|
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Public Access Chelan 06



July 20, 2011
Data: WA DOE,
WA OFM, TPL,
TNC, Chelan County,
WA State Parks, WNF



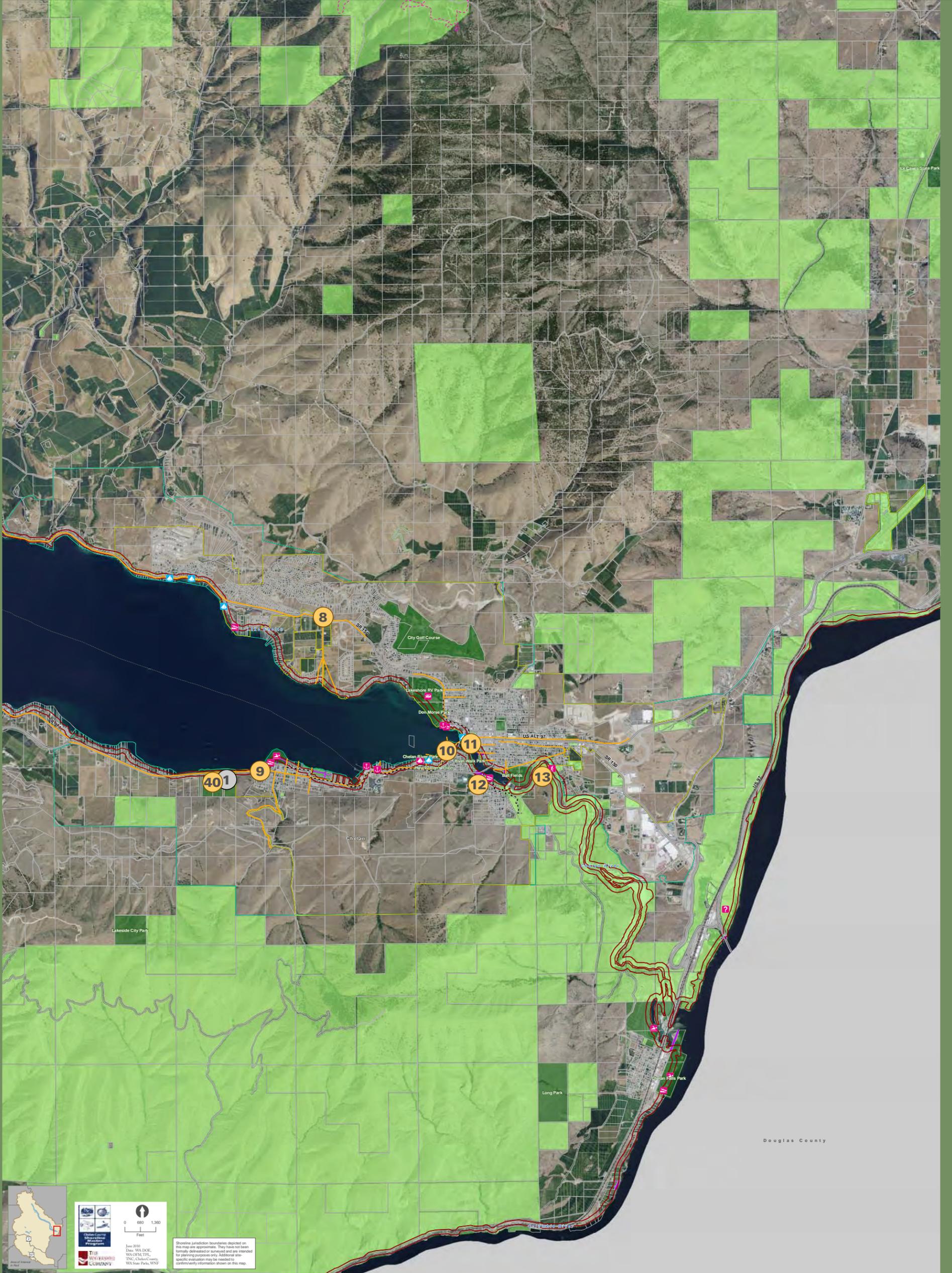
Public Access, Parks, and Other Public Lands

- | | | | |
|------------------------|----------------------|----------------------------------|-----------------|
| Boat Launch | Picnic Area | Fishing Easement | Hiking Trails |
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| Other Boating Facility | Winter Rec. Facility | Vacated Streets | City Boundaries |
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Public Access & Recreation

City of Chelan



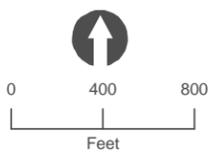
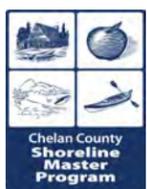
Showing jurisdiction boundaries depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.

- | | | | |
|--|--|---|---|
| <ul style="list-style-type: none"> ■ Parks ■ Other Public and Protected Lands ▲ Boat Launch ▲ Campground ▲ Comm. Dock/Marina ▲ Fishing Access ▲ Horse Camp ▲ Marina ▲ Other Boating Facility | <ul style="list-style-type: none"> ▲ Picnic Area ▲ RV Camp ▲ Ski Area ▲ SnoPark ▲ Swimming Area ▲ Trailhead ▲ Visitor Info Site ▲ Winter Rec. Facility | <ul style="list-style-type: none"> ■ WDFW Fishing Easements ■ Fishing Easement ■ Fishing Easement with Boatlaunch ■ Opportunity Areas ● Comments ● & Observations ■ Potential ROW Access ■ View Corridors | <ul style="list-style-type: none"> — Hiking Trails — Proposed Trails □ Parcels □ Jurisdiction □ City Boundaries □ UGA Boundaries — Railroads — Highways |
|--|--|---|---|

Douglas County



SHORELINE RESIDENTIAL (SF) SETBACK TIERS ON LAKE CHELAN Chelan 01



September 26, 2014
Data: WA DNR, WA OFM,
Chelan County.
Aerial: 2011 USDA NAIP



Shoreline Residential Setback Tiers*

- Tier 1 (50')
- Tier 2 (25')
- Ordinary High Water Mark (OHWM)

≈ Highways

~ Railroads

□ Parcels

□ City Boundaries

□ UGA Boundaries

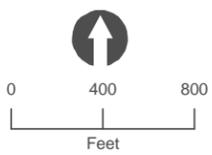
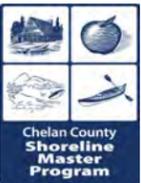
□ WRIA Boundaries

* Shoreline setbacks are not applicable on lots separated from Lake Chelan by an improved road or by another parcel.

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SHORELINE RESIDENTIAL (SF) SETBACK TIERS ON LAKE CHELAN Chelan 02



September 26, 2014
Data: WA DNR, WA OFM,
Chelan County.
Aerial: 2011 USDA NAIP



Shoreline Residential Setback Tiers*

- Tier 1 (50')
- Tier 2 (25')
- Ordinary High Water Mark (OHWM)

Highways

Railroads

Parcels

City Boundaries

UGA Boundaries

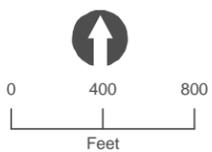
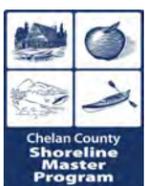
WRIA Boundaries

* Shoreline setbacks are not applicable on lots separated from Lake Chelan by an improved road or by another parcel.

Shoreline jurisdiction boundaries depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.



SHORELINE RESIDENTIAL (SF) SETBACK TIERS ON LAKE CHELAN Chelan 03



September 26, 2014
Data: WA DNR, WA OFM,
Chelan County.
Aerial: 2011 USDA NAIP



Shoreline Residential Setback Tiers*

- Tier 1 (50')
- Tier 2 (25')
- Ordinary High Water Mark (OHWM)

≈ Highways

≈ Railroads

□ Parcels

□ City Boundaries

□ UGA Boundaries

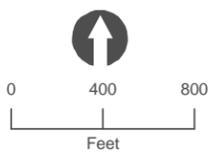
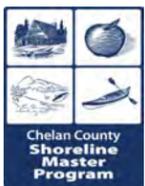
□ WRIA Boundaries

* Shoreline setbacks are not applicable on lots separated from Lake Chelan by an improved road or by another parcel.

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SHORELINE RESIDENTIAL (SF) SETBACK TIERS ON LAKE CHELAN Chelan 04



September 26, 2014
Data: WA DNR, WA OFM,
Chelan County.
Aerial: 2011 USDA NAIP



Shoreline Residential Setback Tiers*

- Tier 1 (50')
- Tier 2 (25')
- Ordinary High Water Mark (OHWM)

- Highways
- Railroads
- Parcels

- City Boundaries
- UGA Boundaries
- WRIA Boundaries

* Shoreline setbacks are not applicable on lots separated from Lake Chelan by an improved road or by another parcel.

Shoreline jurisdiction boundaries depicted on this map are approximate. They have not been formally delineated or surveyed and are intended for planning purposes only. Additional site-specific evaluation may be needed to confirm/verify information shown on this map.

GUIDANCE FOR DEVELOPMENT OF VEGETATION MITIGATION PLANS



CHAPTER ONE	Site Evaluation	1
CHAPTER TWO	Planning Your Project	2
	<i>i. Existing Site Plan Example</i>	3
	<i>ii. Recommended Plants</i>	6
CHAPTER THREE	Installing your Project	8
CHAPTER FOUR	Maintenance and Monitoring	10

1

SITE EVALUATION

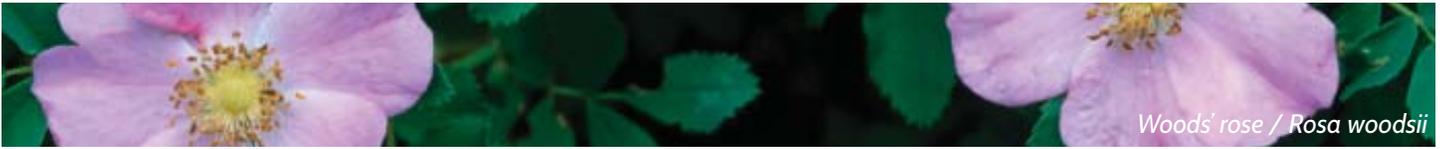
2

PLANNING YOUR
PROJECT

3

INSTALLING YOUR
PROJECT

4

MAINTENANCE &
MONITORING

SITE EVALUATION

It is important to perform a site evaluation. This evaluation process will generate site-specific information that will aid in the development of your planting plan. This worksheet is designed to record site information.

Project Contact: _____ Phone number: _____

Project Location: _____

Permit Number (if any): _____ Date: _____

Complete the table by checking the boxes that best describe the conditions on your site.

Table 1. Site assessment table

HYDROLOGY	Dry <input type="checkbox"/>	Moist <input type="checkbox"/>
LIGHT	Sun <input type="checkbox"/>	Shade <input type="checkbox"/>
TOPOGRAPHY	Flat <input type="checkbox"/>	Slope <input type="checkbox"/>
ASPECT	South-facing <input type="checkbox"/>	North-facing <input type="checkbox"/>
EXISTING VEGETATION	None (bare ground) <input type="checkbox"/>	Lawn <input type="checkbox"/>
	Invasive weeds <input type="checkbox"/>	Existing native plants <input type="checkbox"/>
	Ornamental/formal landscape <input type="checkbox"/>	

1

SITE EVALUATION

2

PLANNING YOUR
PROJECT

3

INSTALLING YOUR
PROJECT

4

MAINTENANCE &
MONITORINGOregon Grape / *Mahonia aquifolium*

PLANNING YOUR PROJECT

A site plan is an important planning tool for your vegetation project. It is the blueprint that maps out and documents the location and extent of all the permanent elements outside of your home. These include dimensions of your property, house, yard, lawn, planting beds, swimming pool, and all other hard surfaces such as patio, deck, rockery, retaining wall and driveway, and which direction is north. Once the site plan is completed, you can better analyze the existing opportunities and constraints on your site.

On the next page you will find an example; a blank Existing Site Plan Worksheet is located at the end of this Appendix.

Using Scale: Use the graph paper provided to produce one sketch of your property. The drawing scale should be somewhat precise as you will use it for reference later. For smaller sites, use one grid square per foot. For larger areas, use one grid square for 2 feet, 5 feet or 10 feet depending on the size of the site. Record the scale that you are using on the worksheet and provide at least one written dimension on the plan to verify the scale.

DRAW YOUR SITE PLAN

- Start by drawing permanent structures such as the house/building footprint, driveway, walkways, etc. As needed, measure these to the nearest foot and draw them on the worksheet.
- Add existing vegetation such as lawn areas, large trees, and shrubs that will remain on the site.

1

SITE EVALUATION

2

PLANNING YOUR PROJECT

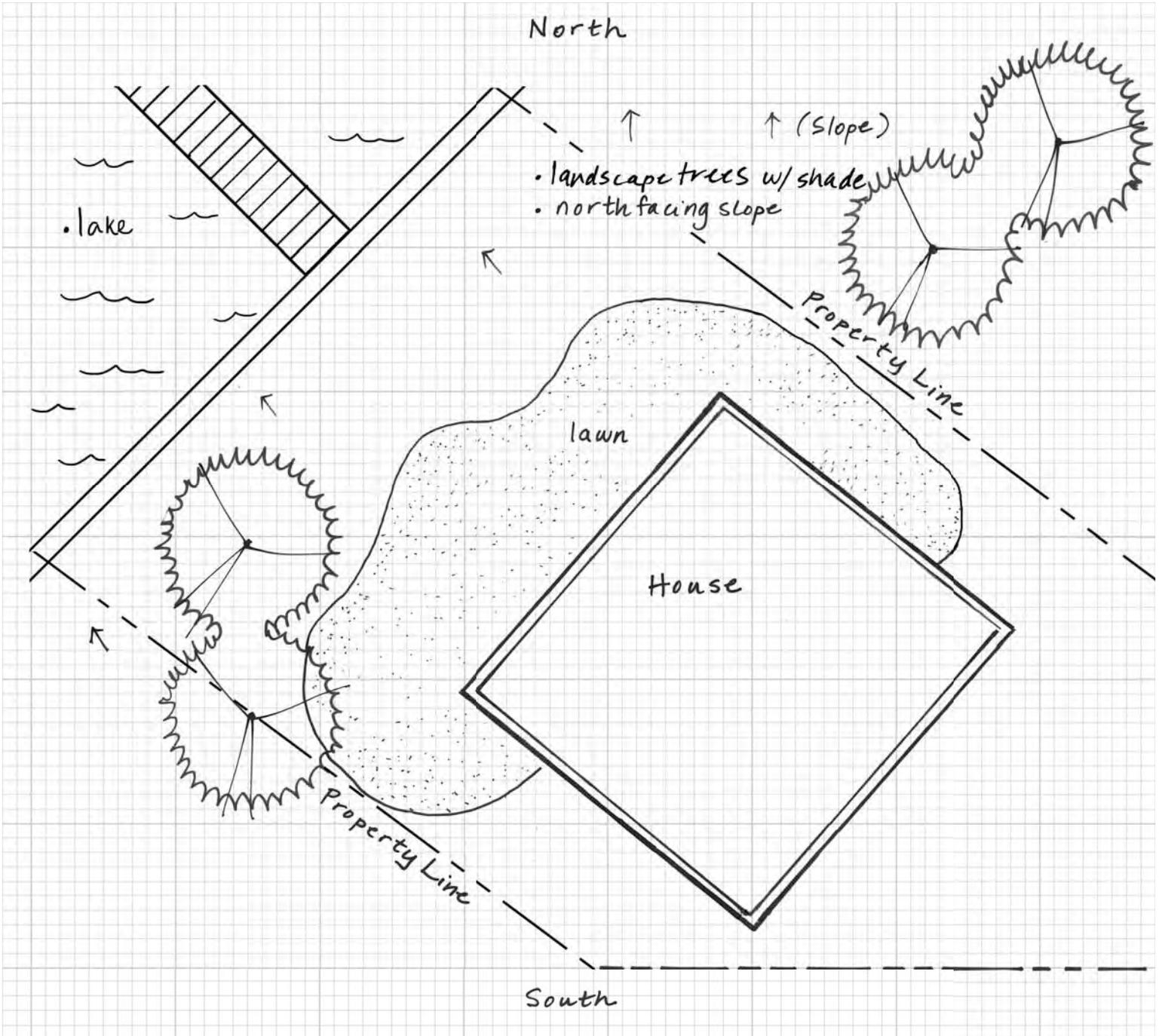
3

INSTALLING YOUR PROJECT

4

MAINTENANCE & MONITORING

EXAMPLE OF EXISTING SITE PLAN



Scale: 1 grid (10 blocks) = 10 feet

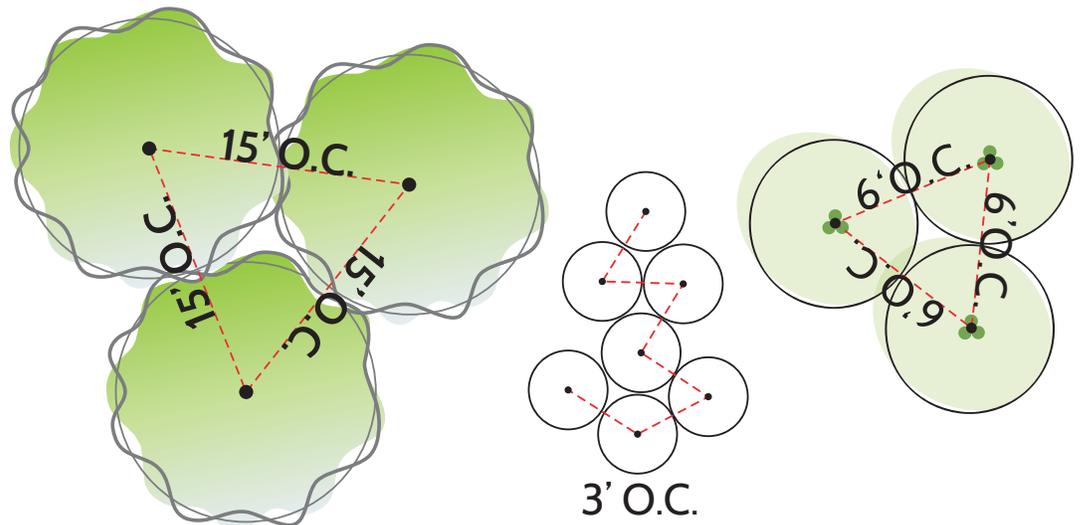
DRAWING THE PLANTING PLAN

The most critical features to consider in your plan are height, light needs and site placement. The Recommended Plant List on page 7 contains information about each plant's ecological specifics, as well as aesthetic and practical considerations.

Each plant will need enough space to grow without being crowded out by other plants. Although small when installed, plants will eventually compete with each other for light, water and nutrients. The project will be more successful if plants are spaced properly. Recommended plant spacing is shown in the table below:

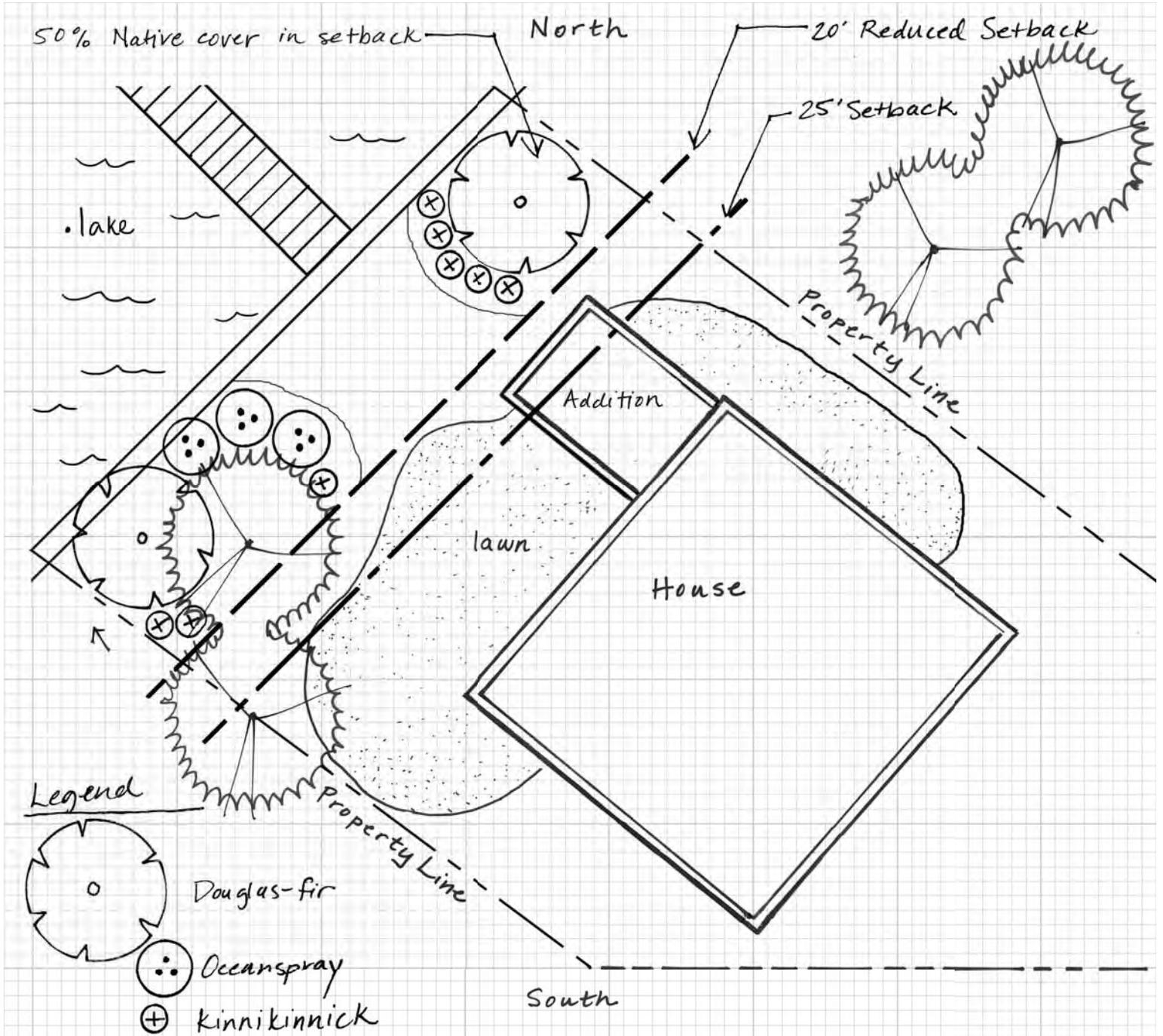
TYPE OF PLANT	AVERAGE SPACING
Trees	15' on-center
Shrubs	6' on-center
Groundcover/Perennials	3' on-center

STEPS TO DRAW YOUR PLAN



1. Copy your completed Existing Site Plan.
2. Determine which plants you are going to use. (See Recommended Plant List.)
3. Consult the Shoreline Master Program to identify specific requirements for species or type (tree, shrub, or groundcover), composition, and area of planting.
4. Draw a simple symbol for each plant. Put each symbol and the name of each plant in the legend. Symbol size should be scaled to on-center spacing (e.g. tree symbols should be 15' in diameter).
5. Lay out the trees first. Make sure to give them enough space. Then lay out the shrubs and groundcover.
6. Count up the number of plants by species and put a total in the legend.

EXAMPLE OF PLANTING PLAN



Scale: 1 grid (10 blocks) = 10 feet

CITY OF CHELAN RECOMMENDED SHORELINE NATIVE PLANT LIST

The following list of native plants are considered most suitable for revegetation plans on the shoreline of the City of Chelan; other native plants may be utilized provided the applicant provides documentation to the City verifying the species is native to the region. All of the below native trees, shrubs and groundcovers shall consist of large, commercially obtained nursery stock. They shall be planted and spaced a maximum of 15-foot centers for trees, 6-foot centers for shrubs, and 3-foot centers for groundcovers.

Plant Common Name (Scientific Name)	Plant Sizes (Height x Width)	Sun or Shade Exposure	Benefits - Humans, Wildlife, Environment
TREES			
Beaked Hazelnut (<i>Corylus cornuta</i>)	6-20 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ▪ Food-mammals, birds ▪ Binds soil
Black Hawthorn, Douglas Hawthorn (<i>Crataegus douglasii</i>)	25 ft. x 15 ft.	Sun	<ul style="list-style-type: none"> ▪ Food-wildlife, birds ▪ Cover-wildlife, birds ▪ Binds soil
Douglas-fir (<i>Pseudotsuga menziesii</i>)	100 ft. x 20 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ▪ Food (seeds)-birds ▪ Fast growing ▪ Canopy for shade ▪ Evergreen
Douglas Maple, Rocky Mountain Maple (<i>Acer glabrum</i> var. <i>douglasii</i>)	20 ft. x 15 ft.	Adaptable, Part- Shade	<ul style="list-style-type: none"> ▪ Food-birds ▪ Cover-wildlife ▪ Canopy for shade
Paper Birch (<i>Betula papyrifera</i>)	70+ ft.	Sun	<ul style="list-style-type: none"> ▪ Food-wildlife, birds ▪ Cover-wildlife, birds ▪ Binds soil
Ponderosa Pine (<i>Pinus ponderosa</i>)	140 ft. x 40 ft.	Sun	<ul style="list-style-type: none"> ▪ Food-birds ▪ Cover-wildlife ▪ Canopy for shade ▪ Evergreen
Rocky Mountain Juniper (<i>Juniperus scopulorum</i>)	15 ft. x 8 ft.	Sun	<ul style="list-style-type: none"> ▪ Food-birds, wildlife ▪ Cover - wildlife ▪ Canopy for shade ▪ Evergreen
Western Hemlock (<i>Tsuga heterophylla</i>)	50 ft. x 35 ft.	Part-Shade	<ul style="list-style-type: none"> ▪ Food (seeds)-birds ▪ Cover - wildlife ▪ Canopy for shade ▪ Evergreen
SHRUBS			
Blue Elderberry (<i>Sambucus nigra</i> ssp. <i>cerulea</i>)	10-12 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ▪ Food-birds, wildlife ▪ Binds soil
Chokecherry (<i>Prunus virginiana</i>)	25 ft. x 25 ft.	Sun	<ul style="list-style-type: none"> ▪ Food-birds ▪ Toxic to livestock ▪ Cover-wildlife
Mock Orange or Syringa (<i>Philadelphus lewisii</i>)	8 ft. x 6 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ▪ Food-wildlife ▪ Flowering shrub ▪ Pleasant scent

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SITE EVALUATION	PLANNING YOUR PROJECT	INSTALLING YOUR PROJECT	MAINTENANCE & MONITORING
Plant Common Name (Scientific Name)	Plant Sizes (Height x Width)	Sun or Shade Exposure	Benefits - Humans, Wildlife, Environment
Oakleaf Sumac (<i>Rhus trilobata</i>)	6 ft. x 6 ft.	Sun	<ul style="list-style-type: none"> ■ Bank stabilization ■ Fire tolerant
Oceanspray (<i>Holodiscus discolor</i>)	8 ft. x 5 ft.	Part-Shade	<ul style="list-style-type: none"> ■ Food-wildlife ■ Binds soil ■ Flowering shrub
Oregon Grape (<i>Mahonia aquifolium</i>)	6 ft. x 6 ft.	Part-Shade to Shade	<ul style="list-style-type: none"> ■ Food-wildlife ■ Cover-wildlife ■ Edible berries ■ Binds soil ■ Evergreen
Redtwig Dogwood (<i>Cornus sericea</i>)	15 ft. x 15 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ■ Berries-wildlife ■ Cover-wildlife ■ Landscaping
Smooth Sumac (<i>Rhus glabra</i>)	15 ft. x 10 ft.	Sun	<ul style="list-style-type: none"> ■ Food-birds, wildlife ■ Edible berries ■ Binds soil
Snowberry (<i>Symphoricarpos albus</i>)	3 ft. x 3 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ■ Food-wildlife ■ Binds soil
Thimbleberry (<i>Rubus parviflorus</i>)	4 ft. x 4 ft.	Part-Shade to Shade	<ul style="list-style-type: none"> ■ Food-birds, wildlife ■ Cover-birds, wildlife ■ Binds soil
Woods' Rose (<i>Rosa woodsii</i>)	6 ft. x 4 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ■ Cover-wildlife ■ Flowering shrub ■ Does well in disturbed areas
GROUNDCOVER			
Creeping Oregon Grape (<i>Mahonia repens</i>)	1 ft. x 3 ft.	Sun to Part-Shade	<ul style="list-style-type: none"> ■ Food-wildlife ■ Edible berries ■ Evergreen
Kinnikinnick (<i>Arctostophylos uva ursi</i>)	12 in.	Sun to Part-Shade	<ul style="list-style-type: none"> ■ Binds soil ■ Evergreen
Western Sword Fern (<i>Polystichum munitum</i>)	3 ft.	Part-Shade to Shade	<ul style="list-style-type: none"> ■ Binds soil ■ Bank stabilization ■ Evergreen

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SITE EVALUATION

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MAINTENANCE &
MONITORING

Salal / Gaultheria shallon

INSTALLING YOUR PROJECT

TIMING

The best time to plant native plants is from October to March. It is also important to only install plants when temperatures are above freezing. The establishment period helps plant viability, especially in areas where irrigation or precipitation is infrequent or absent.

INVASIVE VEGETATION

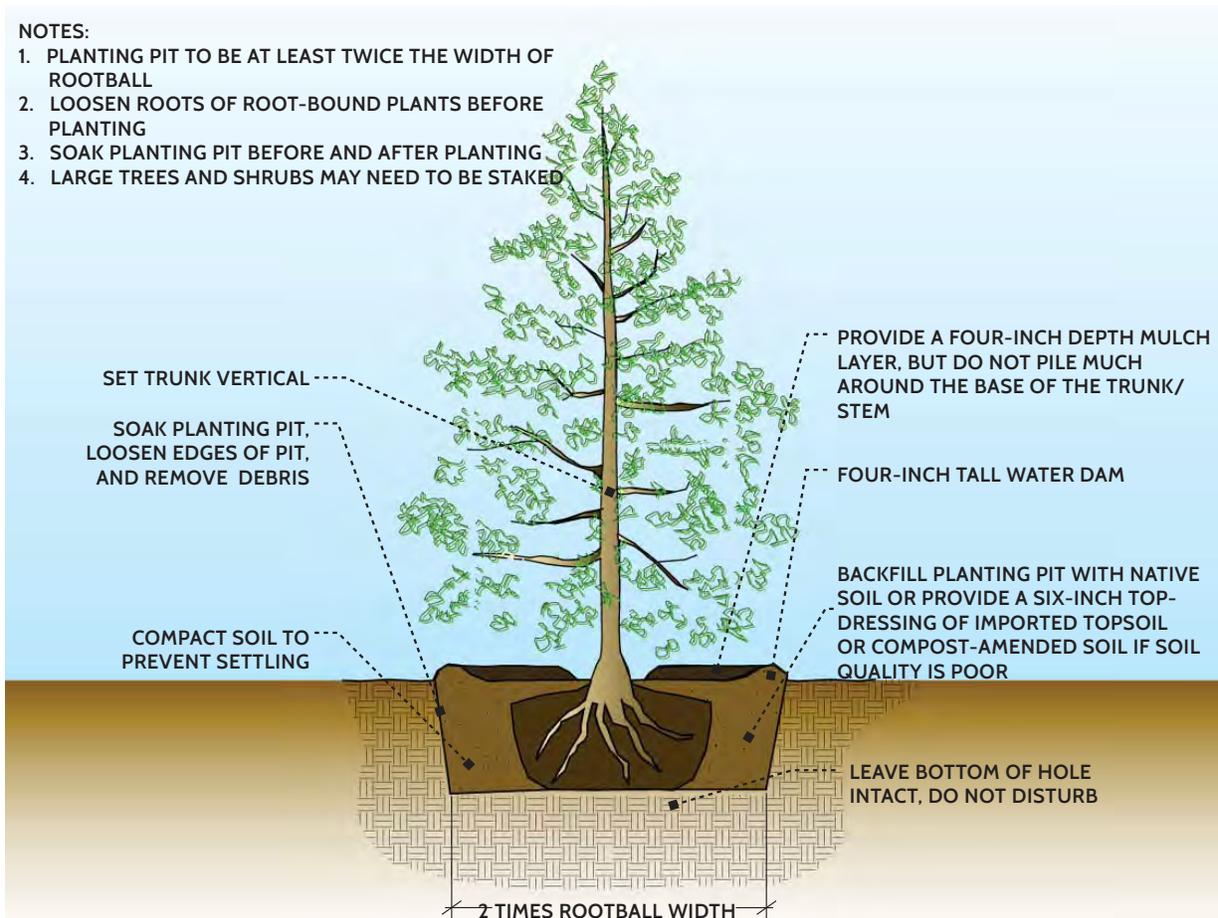
Where encountered, invasive weeds should be removed manually without the use of herbicide, except in rare cases when applied by a State licensed pesticide applicator and approved by the City. Manual removal can be accomplished by grubbing out plants and roots entirely (including seed pods, fruits, and leaves). The ideal time for removal is prior to flowering in spring or summer. If removal is to occur after flowering, it is recommended that flowers be cut off and disposed of prior to grubbing. Grubbed out materials should be disposed of off-site immediately, since many of these species are still capable of propagating post-removal. Do not use weed materials for mulch and do not put into compost.



MULCHES

Mulches are materials that are placed on top of the soil surface. Mulch can improve soil nutrients and water-holding capacity. Depending on site conditions, planting in full sun may require more mulch to help retain soil moisture.

TREE AND SHRUB PLANTING DETAIL



TREE AND SHRUB PLANTING SEQUENCE

1. Dig a pit for each plant that is twice the size of the root ball or plant container.
2. Remove large rocks and other debris from the pit.
3. Soak the pit with water by filling it at least half-way. Allow the water to drain before installing plant. Note that some pits may not fill if the soil is very sandy.
4. "Rough up" the roots of the plants, pruning or straightening circling roots. Roots that circle the bottom and sides of the root ball can later girdle the tree as the trunk attempts to grow outward.
5. Install the plant in the pit, backfilling as necessary such that soil surface matches the surrounding ground level. Make sure stem of the plant is at the same ground level that it was in the nursery pot.
6. Mulch each plant with 4 inches of coarse wood chip mulch (preferred) or raked leaves. Keep mulch a few inches away from the stem.
7. Water the plant again.



Rose / Rosa spp.

MAINTENANCE & MONITORING

WATERING

Providing adequate water to newly installed plants as they establish their root systems is vital to their survival and should be provided on a temporary basis only until the plants become established, generally three to five years. Once established, properly selected native plants should not require a permanent irrigation system.

Temporary irrigation systems that save water include soaker hoses and drip irrigation. Correct water placement is important. Ensuring that water is reaching the roots and surrounding soil without running off is the key. Generally, 1-2 inches of water per week is recommended. Avoid watering during the hottest part of the day because you will lose water to evaporation.

FERTILIZER

Fertilizer should not be applied within the shoreline setback. Research has shown that newly installed plants have undeveloped root systems which will not use fertilizer. If fertilizer is used, it will benefit weeds instead of your new plants.

WEEDING

Each installed plant should be kept free of weeds and grasses in a 24-inch-diameter circle around the stem. Weeds should be pulled by hand. Weed wackers should not be used around young plants because they can easily damage or kill developing plants. Herbicides generally should not be used in shoreline setbacks.

MONITORING YOUR PROJECT

Planting projects should be monitored over a five-year period, unless specifically stated otherwise in the SMP or permit documents, to verify that installed plants survive and that the performance standards are achieved. Mitigation measures must continue to be maintained beyond the 5-year monitoring period over the life of the use.

Monitoring reports must be submitted to the City at the ends of years 1, 3, and 5. These reports must include the following:

- As-built plans that document where plants were installed and any changes that were made to the permitted plans.
- Comprehensive photo documentation of site conditions. Photos should be taken from the same general location every year to allow for a comparison of vegetation growth, cover, and survival between years.
- Documentation of plant survival and progress toward meeting performance standards, detailed below.
- Discussion of any maintenance needed or conducted to meet performance standards.

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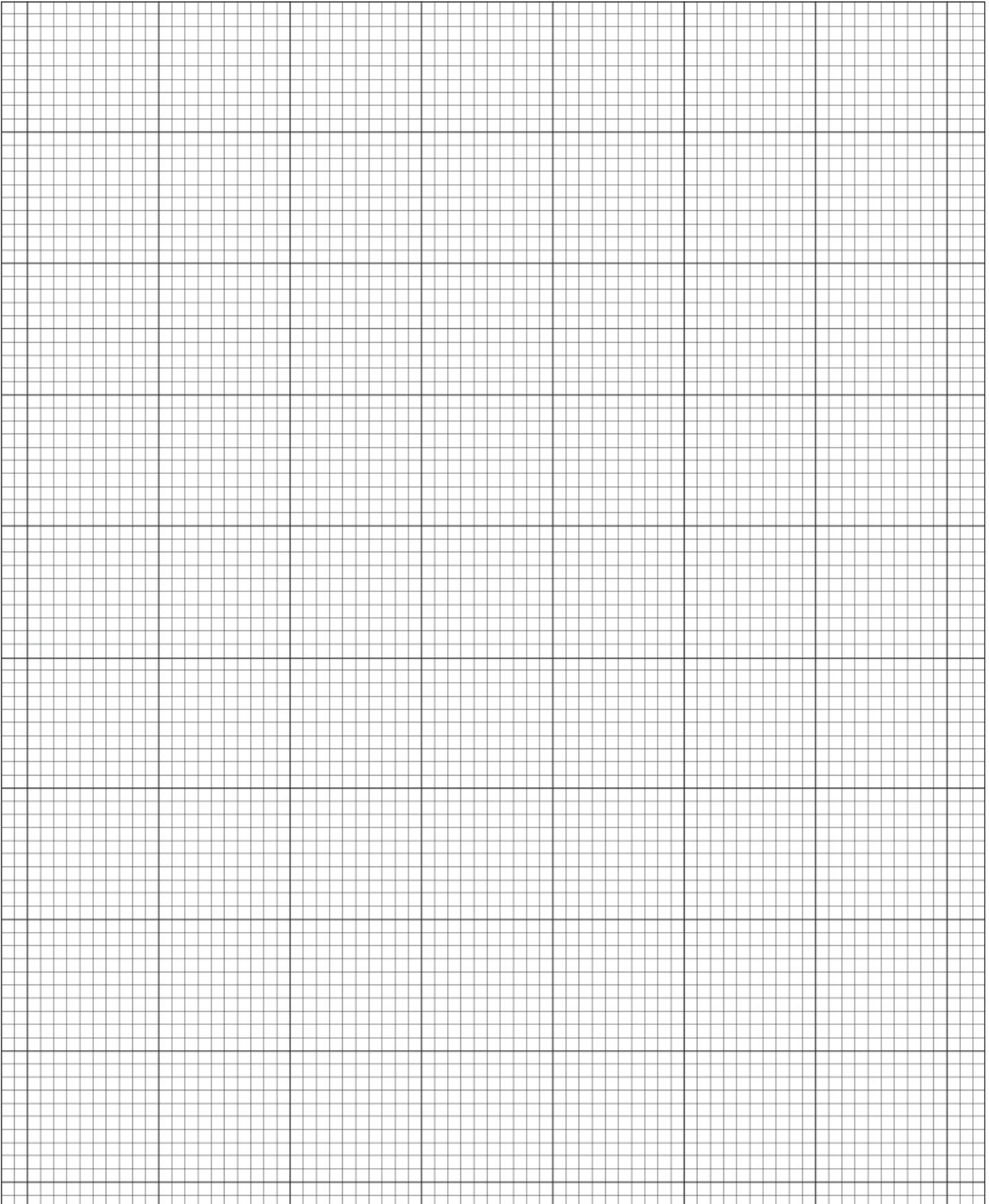
MAINTENANCE &
MONITORING

PERFORMANCE STANDARDS

The City of Chelan's SMP establishes a performance standard for survival of mitigation plantings.

A 100 percent survival standard applies to the first year post-installation. Typically, the plant supplier will warranty plants within the first year of growth. An 80 percent survival standard applies to years 3 and 5. Survival is calculated by counting each individual plant by species and comparing the results to the original planting plan. For example, if 8 snowberry plants were found alive and 10 were originally planted, the survival is 80 percent.

YOUR SITE & PLANTING PLAN



Notes:

Scale: