

ORDINANCE NO. 464

AN ORDINANCE OF THE CITY OF NAPAVINE, WASHINGTON, REPEALING EXISTING TITLE 14 OF THE NAPAVINE MUNICIPAL CODE AND REPLACING THAT CHAPTER WITH A NEW TITLE 14 OF THE NAPAVINE MUNICIPAL CODE WHICH IS DESIGNATED AS THE NAPAVINE CRITICAL AREAS ORDINANCE (NCAO).

The City Council of the City of Napavine, Washington do ordain as follows:

SECTION 1. Repeal

Title 14 of the Napavine Municipal Code entitled “Growth Management” is hereby repealed.

SECTION 2. Adoption of New Title 14

A new Title 14 of the Napavine Municipal Code, designated as Napavine Critical Areas Ordinance (NCAO) is adopted with the following sections and subsections of that new Title:

- 14.010.010 Authority and Title
- 14.010.020 Purpose
- 14.010.030 Definitions
- 14.010.040 Applicability and critical areas maps
- 14.010.050 Uses
- 14.010.060 Variances
- 14.010.070 Exemptions
- 14.010.080 Reasonable use exemption
- 14.010.090 Best available science
- 14.010.100 Development standards
- 14.010.110 Mitigation
- 14.010.120 Critical lands
 - A. Critical aquifer recharge areas
 - B. Fish and wildlife habitat conservations areas
 - C. Frequently flooded areas
 - D. Geologically hazardous areas
 - E. Wetlands
- 14.010.130 Residential density transfer
- 14.010.140 Selective timber harvesting on critical lands
- 14.010.150 Application fees
- 14.010.160 Bonds to insure mitigation, maintenance and monitoring
- 14.010.170 Critical area inspections

14.010.010 Authority and Title

This chapter is established pursuant to RCW 36.70A.060. Chapter 14.010 is known as the Napavine Critical Areas Ordinance.

14.010.020 Purpose

The purpose of this chapter is to implement the open space policies of the Napavine comprehensive plan and the elements of the Washington State Growth Management Act.

Critical areas are valuable and potentially fragile natural resources that, in their natural state, provide many valuable social and ecological functions. The attendant buffers of critical areas are essential to the maintenance and protection of the functions and values of critical areas. The loss of social and ecological functions provided by critical areas, especially wetlands, riparian zones and fish and wildlife habitat, results in a detriment to public safety and welfare.

Critical areas help to relieve the burdens on the people of Napavine which urban development can create including congestion, noise and odors, air pollution, and water quality degradation.

Critical areas serve several important urban design functions. They provide: (1) open space corridors separating and defining developed areas within the city; (2) views and edges which enhance property values and quality of life in developed neighborhoods; (3) educational opportunities for the citizens of Napavine and (4) accessible areas for residents to stroll, hike and enjoy Napavine's valuable natural features.

Conservation of critical areas has associated natural resource benefits, including improved air and water quality, maintenance of fish and wildlife habitat, decreased erosion and sedimentation to streams, absorption of pollutants and preservation of priority, threatened or endangered plant and animal species.

The intent of this ordinance is for the city of Napavine to achieve no net loss of wetlands, floodplains, fish and wildlife habitat areas, and riparian zones and to avoid significant adverse impacts to geologically hazardous areas and aquifer recharge/wellhead protection areas.

The city's preferred strategy to achieve no net loss is to avoid adverse impacts to critical areas and buffers. However, the city recognizes that there are situations and circumstances where avoidance is not practicable whereupon the intent of this chapter is to minimize and mitigate the environmental impacts of development within and adjacent to critical areas and buffers.

This chapter is based upon two equally important principles, the protection of individual property rights and the protection of critical areas consistent with state law throughout the

urban area. This chapter attempts promote a balance between private use of critical areas and the maintenance of the natural appearance and functional values inherent in critical areas.

Development limitations on critical areas reduce the need to require additional studies to ensure compliance with the State Environmental Policy Act (SEPA) process and other state of federal environmental regulations.

14.010.030 Definitions

For the purpose of this chapter the definitions set forth in this chapter shall apply. Unless specifically defined in this chapter, words or phrases used in this chapter shall be interpreted so as to give them the meaning they have in common usage and to give this title it's most reasonable application.

Administrator	“Administrator” means the Community Development Director or his or her designee.
Aesthetics	“Aesthetics” means a characteristic of development or the environment relating to physical beauty.
Agricultural Uses	(Reserved)
Alter	“Alter” means to adjust, modify or rework a structure or parcel of land.
Altered	“Altered”, when referring to wetlands, means a wetland of which at least 50 percent has been graded, drained, de-vegetated, or replanted with non-wetland plants.
Anadromous	“Anadromous” means fish that migrate up rivers and streams from the ocean to breed in fresh water.
Aquifer	“Aquifer” means a saturated permeable geologic unit that can transfer substantial quantities of water under ordinary hydraulic gradients.
Aquifer recharge area	“Aquifer recharge area” means the area in which rainwater and other surface waters percolate downward through surface soil and underlying geologic formations that are permeable enough to allow significant additions of water to an underlying aquifer.
Area of shallow flooding	“Area of shallow flooding” means areas designated AO or AH Zone on the flood insurance rate map (FIRM). The base flood depths range from one to three feet, a clearly defined channel does not exist, the path of flooding is unpredictable and indeterminate,

and velocity flow may be evident. AO is characterized as sheet flow and AH indicated ponding.

Area of special flood hazard

“Area of special flood hazard” shall mean the land in the flood plain subject to a one percent chance or greater of flooding in any given year as shown on flood insurance rate maps (FIRM) or except as otherwise determined by the Federal Emergency Management Agency (FEMA).

Base flood

“Base flood” shall mean the flood having a one percent chance of being equaled or exceeded in any given year. Also referred to as the “100-year” flood.

Basement

“Basement” means any floor level below the first story in a building, except that a floor level in a building having only one floor level shall be classified as a basement unless such floor level qualifies as a first story as defined herein.

Best available information

“Best available information” means data, other than official flood insurance rate map data, from federal, state, or other sources, provided this data has either been generated using technically defensible methods or is based on reasonable historical analysis and experience.

Best available science (BAS)

“Best available science” means a valid scientific process or method of inquiry that is consistent with the criteria for establishing best available science as found in WAC 365-195-900, as amended.

**Best management practices (BMPs)-
Aquifer recharge areas**

“Best management practices (BMPs),” for the aquifer recharge areas section, means physical, structural, and or managerial practices that when singly, or in combination, prevent or reduce the adverse environmental impacts to or pollution of ground water. Such practices may include schedules of activities, prohibitions of practices, maintenance procedures, and other management practices, to prevent or reduce pollution of ground water. BMPs also include treatment requirements, operating procedures, and practices to control plant site runoff, spillage, leaks, sludge, or water disposal, or drainage for raw material storage.

BMPs-Stormwater

When associated with stormwater management means physical, structural, and/or managerial practices that when used singly, or in combination, prevent or reduce pollution of water; when associated with groundwater protection means a written plan outlining accepted practices, such as liquid containment, transfer practices,

and emergency procedures whose purpose is to provide containment for underground storage tanks.

- BMPs-Wetlands** “Best management practices” for the wetlands section, means conservation practices or systems of practices and management measures that: (1) Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxics, and sediment; and (2) Minimize adverse impacts to surface water and ground water flow, circulation patterns, and to the chemical, physical, and biological characteristics of wetlands.
- Buffer-Generally** “Buffer” means an area that abuts or surrounds a critical area that is necessary to protect the integrity of the functions and values of the critical area.
- Buffer-Geologic hazard** For purposes of geologically hazardous areas, a “buffer” means an undisturbed area preserved to provide an assurance that activities that subject people or property to risk will be located out of the area of influence of landslides or similar geological hazards and for the protection of native vegetation to provide slope stability and reduce the risk of erosion.
- Buffer-Wetland, stream and habitat area** For purposes of the wetland, stream and habitat critical area sections, a “buffer” means an undisturbed area of vegetation to protect the integrity, functions, and values of the affected ecological processes, including hydrologic, physical and habitat and shall reflect the sensitivity of the resource and the type and intensity of human activity proposed to be conducted nearby.
- Channel migration zone** “Channel migration zone” means the area along a river or stream within which the channel can reasonably be expected to migrate over time as a result of normally occurring processes. It encompasses that area of current and historic lateral stream channel movement that is subject to erosion, bank destabilization, rapid stream incision, and/or channel shifting, as well as adjacent areas that are susceptible to channel erosion.
- City** “City” means a Class 4 municipality governed by the mayor and Napavine city council, or the city designee.
- Clearing** The act of removing existing vegetations, structures or other items from a site prior to undertaking land improvements.
- Coastal high hazard area** “Coastal high hazard area” means the area subject to high velocity water, including but not limited to storm surge or tsunamis. This

area is designated on a flood insurance rate map (FIRM) as Zone V1-30, VE or V.

Conservation covenant

“Conservation covenant” means a recorded instrument entered into pursuant to a condition of approving a triggering application.

Construction

“Start of construction” means the date the building permit was issued, provided the actual start of construction, placement of a manufactured home on a foundation, or other permanent construction beyond the stage of excavation, was within 180 days of the permit date. The actual start means either the first placement of permanent construction of structure on a site, such as the pouring of slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation.

“Permanent construction” does not include:

- Land preparation, such as clearing, grading and filling;
- Installation of streets and/or walkways;
- Excavation for a basement, footings, piers, or foundation or the erection of temporary forms; and
- Construction of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure.

Council Creation (establishment)

“Council” means the council of the City of Napavine.

“Creation (Establishment)” means the manipulation of the physical, chemical, or biological characteristics present to develop a critical area where a critical area did not previously exist. Activities typically involve excavation of upland soils to elevations that will produce a wetland hydro period, create wetland soils and support the growth of hydrophytic plant species. Creation results in a net gain of wetland acres.

Critical area(s)

“Critical Areas” means any of the following areas or ecosystems: wetlands, critical aquifer recharge areas, streams, fish and wildlife habitat conservation areas, frequently flooded areas, and geologically hazardous areas as defined by the Growth Management Act (RCW 36.70A.170).

Critical area function

“Critical area functions” means the physical, chemical, and biological processes or attributes of a critical area.

Critical area values

“Critical area values” means the critical area processes or attributes that are valuable or beneficial to society.

Critical facility	“Critical facility” means a facility for which even a slight chance of flooding or geological hazard would be too great. Critical facilities include but are not limited to schools, hospitals, police, fire, and emergency response installations, nursing homes, and installations which produce, use or store hazardous materials or hazardous waste.
Dangerous wastes	“Dangerous wastes” means those wastes designated in WAC 173-303-070 through 173-303-120 as dangerous or extremely hazardous or mixed waste. As used in Chapter 173-303 WAC, the words “dangerous waste” will refer to the full universe of wastes regulated by that chapter, and will be used interchangeably with “hazardous waste.”
Design Storm	A prescribed hyetograph and total precipitation amount (for a specific duration recurrence frequency) used to estimate runoff for a hypothetical storm of interest or concern for the purposes of analyzing existing drainage, designing new drainage facilities or assessing other impacts of proposed project on the flow of surface water. (A hyetograph is a graph of percentages of total precipitation for a series of time steps representing the total time during which the precipitation occurs).
Detention Facility	An above- or below-ground facility, such as a pond or tank, that temporarily stores storm water runoff and subsequently releases it at a slower rate than it is collected by the drainage facility system. There is little or no infiltration of stored storm water.
Development	“Development” means any manmade change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations located within the area of special flood hazard.
Development Right	A legal claim to convert a tract of land to a specific purpose by construction, installation, or alteration of a building or other structure.
Domestic Animal	An animal normally kept incidental to a single-family dwelling. Included are dogs and cats; excluded are wild or exotic animals, horses and cows, chickens, goats, or other similar animals.
Drainage	The removal of surface water or groundwater from land by drains, grading or other means. Drainage includes the control of runoff to minimize erosion and sedimentation during and after development

and includes the means necessary for water supply preservation, prevention or alleviation of flooding.

Drainage Basin Elevation	A geographic and hydrologic subunit of a watershed. “Elevation” shall mean: (1) The vertical distance above or below a fixed reference level or, (2) a flat scale drawing of the front, rear, or side of a building or structure.
Emergent wetland	“Emergent wetland” means a wetland with at least 30 percent of the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.
Endangered species	“Endangered species” means fish and wildlife species native to Washington that are seriously threatened with extinction throughout all or a significant part of their ranges within the state.
Energy-efficient structure	“Energy-efficient structure” shall mean a structure designed and built to comply with the annual thermal performance standards established by the Northwest Power Planning Council as the Model Conservation Standards.
Enhancement	“Enhancement” means actions performed to improve the condition of an existing degraded wetland or buffer so that the functions provided are of a higher quality.
Environment	The physical, social and economic conditions that exist within the area which will be affected by a proposed project.
Environmentally sensitive lands, potential	“Potential environmentally sensitive lands” are lands shown on the city zoning map as an overlay to demonstrate areas which may contain wetlands, steep slopes, or other similar environmentally critical features which may limit or prevent construction.
Erosion	The detachment and movement of soil or rock fragments by water, wind, and/or gravity.
Erosion control	“Erosion control” means on-site and off-site control measures that are needed to control conveyance and/or deposition of earth, turbidity or pollutants after development, construction, or restoration.
Erosion hazard areas	“Erosion hazard areas” means those areas identified by the United States Department of Agriculture Soil Conservation Service as having severe or moderate rill and inter-rill erosion hazard and areas subject to sever of moderate stream bank erosion.

Exotic “Exotic” means any species of plants or animals that are not native to the watershed.

Fill Earth or any other approved substance or material.

Fish and wildlife conservation areas

“Fish and wildlife habitat conservation areas” means land are which meets the definition thereof pursuant to WAC 365-190-080(5) and includes all lands within the following categories:

1. Areas with which endangered, threatened, and sensitive species have a primary association including areas with which “priority species” as defined by the Washington Department of Wildlife have a primary association.

2. “Priority habitats” as identified by the Washington Department of Fish and Wildlife. Priority habitats are areas with one or more of the following attributes pertaining to state species listed as endangered or threatened: comparatively high wildlife density, high wildlife species richness, significant wildlife species richness, significant wildlife breeding habitat, significant wildlife seasonal ranges, significant movement corridors for wildlife, limited availability, and/or high vulnerability.

3. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish or wildlife habitat. These do not include ponds deliberately designed and created from dry sites such as canals, detention facilities, wastewater treatment facilities, farm ponds, temporary construction pond of less that three years’ duration, and landscape amenities. However, naturally occurring ponds shall include those artificial ponds intentionally created with the approval of a regulatory authority from dry areas to mitigate adverse impact upon other ponds.

4. Lakes, ponds, streams, and rivers planted with game fish as defined by RCW 77.08.020, including fish planted under auspices of federal, state local, or tribal programs, or which support priority fish species as identified by the Washington Department of Fish and Wildlife.

5. Habitats and species of local importance; as designated in this Chapter.

6. Waters of the state as defined in Title 222 WAC 222.

7. State natural area preserves and natural resource conservation areas.

Flood or flooding “Flood” or “flooding” means a general or temporary condition of partial or complete inundation of normal dry land areas from the overflow of inland water and/or the unusual and rapid accumulation of runoff of surface waters from any source.

Flood insurance rate map

“Flood insurance rate map (FIRM)” means the official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood insurance study

“Flood insurance study” means the official report provided by the Federal Insurance Administration that includes flood profiles, the flood boundary-floodway map, and the water surface elevation of the base flood.

Flood protection elevation

“Flood protection elevation” means one foot above the base flood elevation.

Flooded-frequently

“Flooded frequently” means a flooding class in which flooding is likely to occur often under normal weather conditions (more than 50 percent chance of flooding in any year of more than 50 times in 100 years).

Floodway

“Floodway” means the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one foot. For areas of special flood hazard studied in detail, the floodway boundary is delineated upon the flood insurance study maps. In all other areas of special flood hazard, the floodway boundary shall be determined by the use of other base flood data.

Floodway-designated

“Designated floodway” means the regulatory floodway that has been delineated on the FIRM of the flood boundary-floodway map (FBFM) or a community’s flood insurance study and is included in the community’s flood damage prevention ordinance.

Floodway fringe

“Floodway fringe” shall mean the land between the boundary of the floodway and the limits of the 100-year floodplain. In those special flood hazard areas where the floodway boundary is not delineated upon flood insurance study maps, the floodway fringe area shall be determined by the use of other base flood data.

Floor (lowest)

“Floor(lowest)” means the lowest floor of the lowest enclosed area (including basement). An unfinished or flood resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building’s lowest floor; provided, that such enclosure is not built so as to

render the structure in violation of the applicable nonelevation design requirements of this title.

Function(s)	“Function(s)” means the beneficial roles served by wetlands including the control of flood waters, maintenance of summer stream flows, filtration of pollutants, recharge of ground water, and provision of significant habitat areas for fish and wildlife.
Groundwater	The portion of water contained in interconnected pores or fractures in a saturated zone or stratum located beneath the surface of the earth or below a surface water body.
Groundwater Management	The management and coordination of groundwater regulations, strategies, polities, and technical information for the protection and use of groundwater resources.
Habitat	“Habitat” means the environment occupied by individuals of a particular species, populations or community.
Habitat area-local	“Local habitat area” means an area that contains sufficient food, water or cover for native terrestrial or aquatic species that the city of Napavine has identified in this chapter as being significant local concern.
Hazard area-landslide	“Landslide hazard areas” means areas potentially subject to landslides based on a combination of geologic, topographic, and hydro geologic factors. They include areas susceptible because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other factors.
Habitat management plan	“Habitat management plan” means a plan prepared for a regulated wildlife habitat critical area and intended to provide for the site-specific protection of endangered, threatened, and sensitive species and their habitats. The plans are to be based on the unique characteristics of the species, as well as surrounding land uses in relation to the proposed activity and landowner goals.
Habitat-priority	“Priority habitat” is a habitat type with unique or significant value to many species. An area identified and mapped as priority habitat has one or more of the following attributes: Comparatively high fish and wildlife density, comparatively high fish and wildlife species diversity, important fish and wildlife breeding habitat, important fish and wildlife seasonal ranges, limited availability, high vulnerability to habitat alteration, or unique or dependent species. The Washington State Department of Fish and Wildlife

maintains a list of maps and priority species that occur within the state and Napavine.

Habitat-riparian area

“Riparian habitat area” is defined as areas adjacent to aquatic systems with flowing water (e.g., rivers, perennial or intermittent streams, seeps, springs) that contain elements of both aquatic and terrestrial ecosystems which mutually influence each other.

Hazard-geological area

“Geologically hazardous areas” means areas that because of their susceptibility to erosion, sliding, earthquake, or other geological events, are not suited to the siting of commercial, residential, or industrial development consistent with public health or safety concerns.

Hazard tree

“Hazard tree” means any tree that is susceptible to immediate fall due to its condition (damaged, diseased, or dead) or other factors and which because of its location is at risk of damaging permanent physical improvements to property or causing personal injury.

Hazardous substance

“Hazardous substances” means any liquid, solid, gas or sludge including material, substance, product, commodity, or waste, regardless of quantity, that exhibits any of the physical, chemical, or biological properties described in WAC 173-303-090 or 173-303-100.

Hazardous waste

“Hazardous waste” shall mean all dangerous and extremely hazardous waste as defined in RCW 70.105.010 except for moderate-risk waste. RCW 70.105.010 is adopted by reference for the purposes of this definition.

Hazardous waste treatment

“Hazardous waste treatment” shall mean the physical, chemical, or biological processing of dangerous waste to make wastes nondangerous or less dangerous, safer for transport, amenable for energy or material resource recovery, amenable for storage, or reduced in volume.

Hazardous waste storage

“Hazardous waste storage” shall mean the holding of dangerous waste for a temporary period as regulated by State Dangerous Waste Regulations, Chapter 173-303 WAC. For purposes of this title, Chapter 173-303 WAC as existing and hereafter amended is adopted by reference.

Headwaters

“Headwaters” means springs, lakes, ponds, or wetlands providing significant sources of water to a stream.

Hydric soil	“Hydric soil” means soil that is saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper part. The presence of a hydric soil shall be determined following the methods described in the Washington State Wetland Identification and Delineation Manual (RCW 36.70A.175).
Hydrophytic vegetation	“Hydrophytic vegetation” means macrophytic plant life growing in water or on a substrate that is at least periodically deficient in oxygen as a result of excessive water content. The presence of hydrophytic vegetation shall be determined following the methods described in the wetlands delineation manual.
Impervious surfaces	“Impervious surface” means a hard surface that either prevents or retards the entry of water into the soil mantle as under natural conditions prior to development or that causes water to run off the surface in greater quantities or at an increased rate of flow compared to natural conditions prior to development. Common impervious surfaces may include, but are not limited to, roof tops, walkways, patios, driveways, parking lots or storage areas, concrete or asphalt paving, gravel roads, packed earthen materials, and oiled macadam or other surfaces which similarly impede the natural infiltration of storm water. Impervious surfaces do not include surface created through proven low impact development techniques.
Improvement	Any building, structure, place, work of art, or other object constituting a physical betterment of real property, or any part of such betterment.
Infiltration	“Infiltration” means the downward entry of water into the immediate surface of soil.
Intermittent stream	“Intermittent stream” means surface streams with no measurable flow during 30 consecutive days in a normal water year.
JARPA	“JARPA” means Joint Aquatics Resource Permit Application.
Land clearing	The exposure of earth by the removal of vegetative cover of any kind.
Land disturbing activity	Any activity that results in a change in the existing soil cover (both vegetative and non-vegetative) and/or the existing soil topography. Land disturbing activities include, but are not limited to, demolition, construction, clearing, grading, filling and excavation.

Manufactured home

“Manufactured home” means a structure, transportable in one or more section, which is built on a permanent chassis and is designed for use with or without a permanent foundation when connected to the required utilities. For floodplain management purposes the term “manufactured home” also includes park trailers, travel trailers, and other similar vehicles placed on a site for greater than 180 consecutive days. For insurance purposes the term “manufactured home” does not include park trailers, travel trailers, and other similar vehicles.

Minimizing

“Minimizing impacts to wetlands or buffers” means:

1. Using appropriate and best available technology or best available science;
2. Taking affirmative steps to avoid or reduce impacts;
3. Sensitive site design and siting of facilities and construction staging areas away from regulated wetlands and their buffers;
4. Providing protective measures such as siltation curtains, hay bales and other siltation prevention measures, scheduling the regulated activity to avoid interference with wildlife and fisheries rearing, resting, nesting or spawning activities;
5. Not jeopardizing the continued existence of endangered, threatened, rare, sensitive, or monitor species as listed by the federal government or the state of Washington.

Mitigation

“Mitigation” means actions taken to replace, compensate for, or enhance critical area functions impacted by a land use development permitted under this chapter. Mitigation actions include:

1. Creation (Establishment) is the manipulation of the physical, chemical, or biological characteristics within a critical site where the resource did not previously exist. Establishment results in a gain in area. Activities related to wetlands typically involve excavation of upland soils to elevations that will produce a wetland hydro period, create hydric soils, and support the growth of hydrophytic plant species.
2. Enhancement is the manipulation of the physical, chemical, or biological characteristics of a site to heighten, intensify, or improve specific ecologic function (s) or to change the growth stage or composition of the vegetation present. Enhancement is undertaken for specified purposes such as water quality improvement, flood water retention, or wildlife habitat. Enhancement results in a change in some ecological functions and can lead to a decline in other ecological functions, but does not result in a gain in area. Activities related to wetlands typically

consist of planting vegetation, controlling non-native or invasive species, modifying site elevations or the proportion of open water to influence hydro periods, or some combination of these activities.

3. Re-establishment is the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former wetland. Re-establishment results in a gain in wetland acres (and functions). Activities related to wetlands could include removing fill material, plugging ditches, or breaking drain tiles.

4. Rehabilitation is the manipulation of the physical, chemical, or biological characteristics of a site with the goal of repairing natural or historic functions of a degraded wetland. Rehabilitation results in a gain in ecological function but does not result in a gain in area. Activities related to wetland mitigation could involve breaching a dike to reconnect wetlands to a floodplain or return tidal influence to a wetland.

5. Restoration is the manipulation of the physical, chemical, or biological characteristics of a site with the goal of returning natural or historic functions to a former or degraded wetland. For the purpose of tracking net gains in wetland acres, restoration is divided into re-establishment and rehabilitation. Re-establishment represents a net gain in acres while rehabilitation does not.

Mitigation sequence

“Mitigation sequence” is the order of action that the approving agency shall require so as to avoid or compensate for impacts to critical areas resulting from the proposed project activity. The type(s) of mitigation required shall be considered and implemented, where feasible, as determined by the city, in the following sequential order of preference:

1. Avoiding the impact by not taking a certain action or parts of an action;
2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation;
3. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
4. Reducing or eliminating the impact over time by preservation and maintenance during the life of the action;
5. Compensating for the impact by replacing or providing substitute resources or environments; or
6. Monitoring the impact and taking appropriate corrective measures to achieve the identified goal.

Native

“Native,” when referring to plants or plant communities, means those species or communities that are indigenous to the watershed, including extirpated species.

New construction “New construction” means structures for which the “start of construction” commenced on or after the effective date of this title.

Normal water year “Normal water year” means a 12-month period (October 1st through September 30th) with average precipitation based upon data from the past 50 years.

Obligate, facultative and facultative wet “Obligate,” “facultative wet,” and “facultative” refer to groupings of plants according to their frequency of occurrence in wetlands. Obligate wetland plants almost always (99 percent probability) occur in wetlands under natural conditions. Facultative wet plants usually (67 to 99 percent probability) occur in wetlands. Facultative plants are equally likely (34 to 66 percent probability) to occur in wetlands or non-wetlands. Such groupings are more fully defined in the wetlands delineation manual.

Open space An area that is intended to provide light and air, and is designed for environmental, scenic or recreational purposes. Open space may include, but is not limited to, lawns, decorative planting, walkways, active and passive recreation areas, golf courses, playgrounds, fountains, swimming pools, wooded areas, water courses, driveways, and other surfaces designed or intended for vehicular travel, but shall not include any required off-street parking areas.

Open space, common An area within or related to a development, not in individually owned lots or dedicated for public use, but that is designed and intended for the common use and enjoyment of the residents of the development.

Open water “Open water” when not specifically defined by the rating criteria, means a proportion of open water to vegetative cover equal to 25 percent to 75 percent of the total wetland area during a majority of the normal water year.

Ordinary high water mark (OHWM) “Ordinary High Water Mark” on all lakes, streams, and tidal water is that mark that will be found by examining the bed and banks and ascertaining where the presence and action of waters are so common and usual, and so long continued in ordinary years, as to mark upon the soil, a character distinct from that of the abutting upland in respect to vegetation as the condition exists on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by the local

government or department: PROVIDED, that in any area where the ordinary high water line cannot be found, the ordinary high water line adjoining saltwater shall be the line of mean higher high tide and the ordinary high water mark adjoining fresh water shall be line of high water. (RCW 90.58.030(2)(b))

Peer review

“Peer review” is the assessment of the work produced by a qualified professional by one or more additional professionals qualified in the same area of expertise, consistent with the requirements of this chapter. A qualified professional for the purposes of peer review shall be a neutral third party independent from the City and the applicant.

In the event that the City requires “peer review” of a report submitted by an applicant, the peer review process shall be accomplished in one of two manners:

1. The applicant may elect to use a Washington State agency, responsible for the oversight of the critical area in question, e.g. Department of Ecology, Department of Fish and Wildlife, etc. The applicant shall request in writing, that the City suspend processing of the underlying land use application until the qualified state agency releases its final peer review report on the applicant’s report in question. The City shall accept the peer review report produced by the state agency.

2. In the event that the applicant does not elect to rely upon state agency review, the City shall select the qualified professional and the applicant shall reimburse the City for the services and expenses of the peer review person(s). The City shall not issue land use approval until it has been fully reimburse for said fees and services. The peer review process shall take place within the timelines established for the land use application in question. The City may elect to accept the peer reviewed report or the applicant’s report.

Permit

Any license, certificate, approval, or other entitlement for use granted by any public agency.

Person

“Person” means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or any agency of the state or local governmental unit however designated.

Preservation

“Preservation (Protection/Maintenance)” means removing a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This includes the purchase of land or easements, repairing water control structures or fences, or

structural protection such as repairing a barrier island. Preservation does not result in a gain of wetland acres, may result in a gain in functions, and will be used only in exceptional circumstances.

Protection

“Protection” means action to avoid or mitigate impacts to in order to preserve the structure, values, and function of the natural environment.

Qualified professional

“Qualified professional” means a person with a minimum of two-years of work experience and professional degrees and/or training pertaining to the critical area in question, with experience in performing delineations, analyzing critical area functions and values, analyzing critical area impacts, and recommending critical area mitigation and restoration. The administrator may require professionals to demonstrate the basis for qualifications and shall make final determination as to qualifications.

1. Aquifer recharge. A qualified professional for critical aquifer recharge areas means a Washington State licensed hydro geologist, geologist, or a professional engineer, with specific education and demonstrated professional competence related to groundwater hazards.

2. Habitat conservation. A qualified professional for habitat conservation areas must have a degree in wildlife biology, ecology, fisheries, or closely related field and demonstrated professional experience related to the subject species/habitat type.

3. Geologic hazards. A qualified professional for geologically hazardous areas must be a professional geologist, a professional engineering geologist or a professional engineer, with specific education and demonstrated professional competence related to geologic hazards.

4. Wetlands. A qualified professional generally means a person with at least two years of full-time professional experience and comprehensive training in wetland issues, including experience performing wetland delineations using state and federal manuals, assessing wetland function and values, analyzing wetland impacts, preparing wetland reports, developing and implementing mitigation plans, and recommending and designing wetland mitigation projects.

Rainy season

The rainy season extends from November 1st through April 30th of the following year.

Recreational vehicle

“Recreational vehicle” means a vehicle that is:

1. Built on a separate chassis;

2. Four hundred square feet or less when measured at the largest horizontal projection;
3. Is designed to be self-propelled or permanently towable by a light duty truck; and
4. Is designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Regulated activities	“Regulated activities” include land clearing, grading, placement of fill or waste material, removal of protected native vegetation, construction and other habitat-altering activities.
Slopes-unstable	Unstable slopes are those sloping areas of land which have in the past exhibited, are currently exhibiting, or will likely in the future exhibit movement of earth.
SEPA	SEPA means “State Environmental Policy Act, RCW 42.21C and WAC 197-11.
Soil Removal	Removal of any kind of soil or earth matter, including top soil, sand, gravel, clay, rock or similar materials or combination thereof, except common household gardening.
Solar access	“Solar access” shall mean the availability of direct sunlight to solar energy systems.
Species-listed	“Listed species” are State listed species including native fish and 014), Threatened (WAC 232-12-011) or Sensitive (WAC 232-12-011); and includes threatened and endangered species under the Federal Endangered Species Act, 50 C.F.R.17.11 and 50C.F.R.17.12.
Species-priority	“Priority species” means animal species listed by the Washington State Department of Fish and Wildlife, Priority Habitat and Species Program, that are of concern due to their low population and/or their sensitivity to habitat manipulation.
Species-threatened	“Threatened” species are native to the state of Washington and likely to become endangered in the foreseeable future throughout a significant portion of its range within the state without cooperative management or the removal of threats. Threatened species are legally designated in WAC 232-12-011.
Species-sensitive	“Sensitive species” are fish and wildlife species native to Washington that are vulnerable or declining, and are likely to become endangered or threatened in a significant portion of their

ranges within the state, without cooperative management or the removal of the threats.

Storm water

Storm water means that portion of precipitation that does not naturally percolate into the ground or evaporate, but flows via overland flow, interflow, channels or pipes into a defined surface water channel, or a constructed infiltration facility.

Storm water management facilities

“Storm water management facilities” include biofiltration swales, filter strips, bubbler diffusers, detention ponds, retention ponds, wet ponds, and similar facilities designed and intended to control and treat storm waters, but not including ditches designed and intended primarily for conveyance.

Streams

“Streams” means those areas where surface waters produce a defined channel or bed excluding streams and lake regulated under the State Shorelines Management Act.

Substantial damage

“Substantial damage” means damage of any origin sustained by a structure whereby the costs of restoring the structure to it’s before damaged condition would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial improvement

“Substantial improvement” means any repair, reconstruction, or improvement of a structure, the cost of which equals or exceeds 50 percent of the market value of the structure either:

1. Before the improvement or repair is started; or
2. If the structure has been damaged and is being restored,

before the damage occurred. For the purpose of this definition “substantial improvement” is considered to occur when the first alteration of any wall, ceiling, floor, or other structural part of the building commences, whether or not that alteration affects the external dimensions of the structure.

Surface Water

Waters that flow over the land surface and frequently interact with groundwater.

Swale

A shallow drainage conveyance with relatively gentle side slopes, generally with flow depths less than one foot.

System functions and values

“System function and values” is a technical term used to identify the role of a critical area in a given area as opposed to its mere physical presence and size; used most often when comparing alternatives for mitigation purposes.

Toe of slope	A point or line on the upper surface of a slope where it changes to horizontal or meets the original surface. The outermost inclined surface at the base of a hill; part of a foot slope.
Topography	The drawing accurately on a map lines that represent particular and consistent elevation levels on the land area depicted on said drawing; also, the actual physical surface’s relief characteristics.
Triggering application	“Triggering application” means an application for one of the permits or approvals listed in this chapter.
Use	“Use” means the purpose for which a property is occupied and utilized, that may include a variety of activities related to the use. Uses may be categorized according to a variety of systems; in a number of manners that emphasize shared characteristics: land use is typically classified in terms of agricultural, residential, commercial, industrial and open space. Uses may be characterized in terms of high, moderate and low intensity based on characteristics that impact other uses or activities.
Use(s)-high intensity	“High intensity use(s)” are generally urban uses which, by their nature, have the potential for substantial effect on critical areas. High intensity uses, where applicable, are defined separately in regulations for individual critical areas.
Use(s)-low intensity	“Low intensity use(s)” means uses, which by their nature generally have a low level of adverse effect on critical areas. Low intensity uses, where applicable, are defined separately in regulations for individual critical areas.
Use(s)-moderate intensity	“Moderate intensity use(s)” means uses, which by their nature generally have a moderate level of adverse effect on critical areas. Moderate intensity uses, where applicable, are defined separately in regulations for individual critical areas.
Use-water dependent	“Water-dependent” means a use or a portion of a use that requires direct contact with the water and cannot exist at a non-water location due to the intrinsic nature of its operations.
Watershed	A geographic region within which water drains into a particular river, stream, or body of water as identified and numbered by the State of Washington Water Resource Inventory Areas (WRIAs) as defined in Chapter 173-500 WAC.

Wellhead protection area	“Wellhead protection area” means the area (surface and subsurface) managed to protect ground water based public water supplies.
Wetland(s)	“Wetland(s)” 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 non-wetland sites, including, but not limited to, irrigation and drainage ditches, grass-lines 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 non-wetland areas created to mitigate conversion of wetlands.
Wetland classes and subclasses	“Wetland classes and subclasses” means descriptive classes of the wetlands taxonomic classification system of the United States Fish and Wildlife Service (Cowardin, et al. 1978).
Wetland delineation manual	“Wetlands delineation manual” means the Washington State Wetland Identification and Delineation Manual (Publication #96-94) dated March 1997, and as subsequently amended.
Wetland-emergent	“Emergent wetland” means a wetland with at least 30 percent to the surface area covered by erect, rooted, herbaceous vegetation as the uppermost vegetative strata.
Wetland-forested	“Forested wetland” means wetland with at least 30 percent of the surface area covered by a canopy of woody obligate, facultative wet, or facultative plants greater than 20 feet in height.
Wetland functions and values	“Functions” refer to the physical, biological, chemical, and geologic interactions among different components of the environment that occur within a wetland. Wetlands perform many valuable functions and these can be grouped into three categories: functions that improve water quality, functions that change the water regime in a watershed such as flood storage, and functions that provide habitat for plants and animals. “Values” refer to wetland processes, characteristics, or attributes that are considered to benefit society.

**Wetland(s)-scrub
-shrub**

“Scrub-shrub wetland” means a wetland with at least 30 percent of its surface area covered by woody vegetation less than 20 feet in height as the uppermost strata.

14.010.040 Applicability and critical areas map

- A. Applicability. The provisions of this chapter apply to lands within the Napavine corporate limits and urban growth area that are either designated as critical areas and their buffers on the city’s official critical areas maps, or are critical areas and buffers which are identified as part of a project specific application and land use review.
1. Properties containing critical areas are subject to this title.
 2. Buffers are protected and impacts to buffers are regulated to help improve the functional values of critical areas.
 3. When the requirements of this chapter are more stringent than those of other Napavine codes and regulations, the requirements of this chapter shall apply.
 4. Where a site contains two or more critical areas, the site shall meet the minimum standards and requirements for each identified critical area as set forth in this title.
- B. Development permit required. The City of Napavine shall not grant any permit, license, or other development approval to alter the condition of any land, water, or vegetation, or to construct or to alter any structure or improvement, nor shall any person alter the condition of any land, water, or vegetation, or construct or alter any structure or improvement for any development proposal within a critical area or its buffer regulated by this chapter, except in compliance with the provisions of this chapter shall be considered a violation and subject to enforcement procedures.
- C. Critical Areas. Critical areas include:
1. Wetlands;
 2. Aquifer recharge areas;
 3. Wellhead protection areas;
 4. Fish and wildlife habitat conservation areas;
 5. Frequently flooded areas; and
 6. Geologically hazardous areas.
 7. Slopes with gradient of 30 percent or greater.
- D. Map location. The general location of critical areas is depicted on the adopted Napavine critical areas map. The critical areas map is an indicator of probable regulated areas. The precise limits of critical areas and their attendant buffers on a particular parcel of land shall be determined by the applicant prior to approval of a development action on the subject property. Development shall avoid critical areas, and where avoidance is not practical, as determined by the city, development shall minimize adverse impacts to critical areas and buffers, consistent with the provisions of this chapter. To determine whether avoidance is

practical, the city shall consider issues such as: the substantial evidence presented by the applicant demonstrating the avoidance measures the applicant considered; the quality of the critical resource and buffer functions and values to be impacted, avoidance of impacts to higher quality resources and buffers is preferred; the nature and extent of mitigation and enhancement measures proposed to compensate for the proposed impact; whether the impacts proposed are necessary to implement the city's capital facilities plan; and other factors determined relevant by the city. The city may also consider the financial implications of avoidance but shall not give private gain greater weight than resource management founded upon best available science. The Community Development Department shall keep on permanent file and maintain the critical areas map.

- E. Use of Existing Procedures and Laws. The following laws and procedures shall be used to implement this chapter:
 - 1. Napavine Development Code (NDC).
 - 2. The State Environmental Policy Act (SEPA), Chapter 43.21C RCW.
 - 3. The Shoreline Management Act (SMA), Chapter 90.58 RCW.

- F. State and Federal Agency Review. Regulated activities subject to review and comment as required through the SEPA and/or JARPA review process.

- G. Administration. When the Administration determines a proposed development or activity is within, abutting, or is likely to adversely affect a critical area or buffer pursuant to the provisions of this chapter, the Administrator shall:
 - 1. Determine the likely presence of a Critical Area;
 - 2. Determine the appropriate use as provided in this chapter and require project plans to incorporate appropriate setbacks or buffers to avoid critical areas and meet specific performance standards;
 - 3. Determine appropriate development or mitigation measures or require the applicant to prepare a critical area assessment report;
 - 4. Review and evaluate the proposal, the critical area report, and relevant information and:
 - a. Determine whether the development proposal conforms to the purposes and performance standards of the NDC,
 - b. Assess the potential impacts to the critical area and determine if they can be avoided or minimized,
 - c. Determine whether mitigation proposed by the applicant is sufficient to protect the functions and values of the critical area and public health, safety, and welfare concerns consistent with the goals, purposes, objectives, and requirements of the NDC; and
 - d. Impose any required conditions to assure compliance with this chapter, including mitigation measures, implementation and monitoring.

- H. Critical Area Assessment (CAR)-Authority and Use.
 - 1. When the Administrator determines a proposed development is within, abutting, or is likely to adversely affect a critical area or buffer pursuant to the

provisions of this chapter, the Administrator shall have the authority to require a Critical Area Report (CAR). A qualified professional shall prepare the report that includes a reasonable level of technical study and analysis to protect the public health, safety and welfare as well as Critical Area protection. The intent of these provisions is to require a reasonable level of technical study and analysis sufficient to protect critical areas. The analysis shall be commensurate with the value or sensitivity of a particular critical area and relative to the scale and potential impacts of the proposed activity.

2. The assessment report shall:
 - a. Demonstrate that the proposal is consistent with the purposes and specific standards of this chapter;
 - b. Describe all relevant aspects of the development proposal and critical areas adversely affected by the proposal and assess impacts on the critical area from activities and uses proposed; and
 - c. Identify proposed mitigation and protective measures as required by this chapter.
 3. The Administrator shall review the critical areas assessment report for completeness and accuracy. The administrator may retain, at applicant's expense, a qualified professional to perform peer review of the conclusions and may reject or request revision of the field and literature findings and conclusions reached in a critical area assessment report when the assessment is inaccurate, incomplete, or does not fully address the critical areas impacts involved.
 4. Critical areas assessment reports shall generally be valid for a period of three (3) years. Future land use applications may require preparation of new or supplemental critical area assessment reports unless it can be demonstrated to the satisfaction of the Administrator that the previously prepared report is adequate for current analysis. The Administrator may also require the preparation of a new critical area assessment report or a supplemental report when new information is found demonstrating that the initial assessment is in error. If the Administrator requires more information in the report he/she shall make the request in writing to the applicant stating what additional information is needed and why.
- I. Critical Area Assessment Report-General Content. At a minimum, a critical areas assessment report should include the following information, as well as any specific information required in provisions for the specific Critical Area.
1. A site plan showing the proposed development footprint and clearing limits, all relevant critical areas and buffers within and abutting the site, a written description of the project, an examination of project on-site design alternatives, and an explanation of why the proposed activity requires a location on, or access across, a critical area and why alternatives are not feasible;
 2. A written description of the critical areas and buffers on or abutting the site, including their size, type, classification or rating, condition, disturbance history, and functions and values.

3. An analysis of potential adverse critical area impacts associated with the proposed activity including, but not limited to, effects related to clearing, grading, noise, light/glare, drilling, damming, draining, creating impervious surface, managing storm water, releasing hazardous materials, other alterations;
4. An analysis of how critical area impacts or risks will be avoided and/or minimized, and/or an analysis of the proposed measures to prevent or minimize hazards. When impacts cannot be avoided, the report shall include a plan describing mitigation that will be provided to replace critical area functions and values altered as a result of the proposal.
5. The dates, names, and qualifications of the persons preparing the report and documentation of analysis methods including any fieldwork performed on the site; and
6. Additional information requested by the Administrator for the assessment of critical areas impacts or otherwise required by the subsequent articles of this chapter.

14.010.050 Uses

- A. Approval required. Unless the requirements of this chapter are met, Napavine shall not grant any approval or permission to alter the condition of any land, water, or vegetation, or to construct or alter any structure or improvement regulated through the following: Building permit, commercial or residential, franchise right-of-way construction permit, site development permit, right-of-way permit, shoreline permits, or any subsequently adopted permit or required approval not expressly exempted by this chapter.
- B. Other law. Compliance with these regulations does not remove an applicant's obligation to comply with applicable provisions of any other federal, state, or local law or regulation.
- C. Allowed Uses. The city may allow the following uses on critical areas and within buffer areas subject to the development standards of NDC 4.010.100 and appropriate mitigation standards as described in NDC 4.010.110:
 1. Low impact recreational uses. The following uses are necessary for the understanding and enjoyment of critical areas.
 - a. Outdoor recreational or educational activities which do not significantly affect the functions and values of the critical area and buffers (including wildlife management or viewing structures, outdoor scientific or interpretive facilities, and pervious trails for non-motorized use, and other similar uses) and meet the following criteria:
 - i. Trails shall not exceed 5 feet in width and shall be made of gravel or pervious material.
 - ii. The trail or facility is located in the outer fifty percent (50%) of a wetland or riparian buffer unless a location closer to the critical area is required for interpretive purposes.

- iii. The trail or facility is constructed and maintained in manner that minimizes disturbance of the wetland or buffer. Trails or facilities within wetlands shall be placed on an elevated structure as an alternative to fill.
 - b. Harvesting wild crops which do not significantly affect the function of the wetland or regulated buffer (does not include tilling of soil or alteration of wetland area).
 - 2. Utilities. Below or above ground utilities, facilities and improvements, where necessary to serve development consistent with the Napavine comprehensive plan and development code, including: streets, roads, highways, sidewalks, street and road lighting systems, traffic signals, domestic water systems, storm and sanitary sewer systems, open space, and parks and recreational facilities, where there is no other reasonable alternative, based on topographic and environmental conditions as determined by the Administrator.
 - 3. Removal of diseased or dangerous trees, as determined by the Administrator or the removal of invasive or nuisance plants.
 - 4. Specific Uses Allowed in Wetlands.
 - a. Enhanced Replacement. Replacing or enhancing a wetland such that the enhanced wetland is of higher quality and meets the criteria for a higher category.
 - b. Wetland Banking. Construction, enhancement or restoration of wetlands to use as mitigation for future wetland development impacts in the same watershed is permitted if:
 - i. A critical area permit shall be obtained prior to any mitigation banking. Federal and state wetland regulations, if applicable, shall supersede city requirements.
 - ii. All impacts to wetlands and wetland buffers shall be mitigated and monitored consistent with NDC 4.010.090(F)(12).
- D. Limited uses. Limited uses, as described in this section, shall avoid critical areas, to the greatest extent reasonable and practicable. Limited uses may be allowed within critical area buffers subject to the mitigation measures and implementation of a monitoring plan as described in NDC 4.010.110.C. Applications for development within critical areas or buffers shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts to critical areas and buffers. All limited uses shall be consistent with the provisions of this chapter and shall be subject to SEPA review.
- 1. Development Subject to Site Plan Review. Any new building or structure affecting critical areas or buffers shall be subject to site plan review, unless otherwise exempted in this chapter.
 - 2. Storm water Facilities. Storm water facilities may be allowed in buffers in wetlands with low habitat function (less than twenty (20) points on the habitat section of the rating system form); provided, the facilities shall be built on the outer 50% of the buffer and not degrade the existing buffer function and are designed to blend with the natural landscape. Unless determined otherwise by the Administrator.

- E. Use intensity. The intensity of the land use proposed has a direct relationship to the potential severity of impacts to critical areas and buffers. Generally, most land uses allowed in an urban zoning district are high impact uses.
See appendix A.

14.010.060 Variances

- A. An applicant who seeks to vary from requirements of this chapter may seek a variance pursuant to this section. The City Council shall review a request to vary from requirements of this chapter through a review process. The city may elect to seek guidance from and may rely upon state agency expertise at the applicant's expense.
- B. Approval criteria. An application to vary from the requirements of this chapter shall demonstrate compliance with all the following criteria:
 - 1. There are special circumstances applicable to the subject property or to the intended use such as shape, topography, location or surroundings that do not apply generally to other properties;
 - 2. The variance is necessary for the preservation and enjoyment of substantial property right or use possessed by other similarly situated property, but which because of special circumstances is denied to the property in question;
 - 3. Granting the variance will not be materially detrimental to the public welfare or injurious to the property of improvement;
 - 4. Granting the variance will not violate, abrogate, or ignore the goals, objectives, or policies of the Napavine comprehensive plan;
 - 5. In addition to the approval criteria above, an application to vary from the buffer requirements of a fish habitat conservation area or riparian area shall demonstrate that the requested buffer width modification preserves adequate vegetation to:
 - a. Maintain proper water temperature;
 - b. Minimize sedimentation; and
 - c. Provide food and cover for critical fish and wildlife species;
 - 6. When granting a variance, the city may attach specific conditions to the variance that will serve to meet the goals, objectives, and policies of this chapter, including the preparation and implementation of a mitigation and monitoring plan consistent with NDC 4.010.110.C.

14.010.070 Exemptions

- A. Exempt activities in Critical Areas. The following developments, activities, and associated uses shall be exempt from provisions of this Chapter, provided that they are otherwise consistent with the provisions of other local, state, and federal laws and requirements, and a written request for exemption has been filed with and approved by the Administrator.
 - 1. The Administrator shall have the authority to negotiate memoranda of agreements with utility service providers or public agencies, and said

agreements shall specify best management practices to be used in situations of emergency and usual and customary repair, which if rigorously adhered to, may exempt said emergency or repair activity, including routine operation and maintenance from further review under this chapter. Memorandum of agreements shall be authorized by the Napavine City Council only after notice and completion of a public hearing on the full terms and merits of the agreement.

2. Emergencies. Emergency activities are those activities necessary to prevent an immediate threat to public health, safety, or welfare, or that pose an immediate risk of damage to private property and that require remedial or preventative action in a time frame too short to allow for compliance with the requirements of this Chapter. Emergency actions that create an impact to a critical area or its buffer shall use reasonable methods to address the emergency; in addition, they must have the least possible adverse impact to the critical area or its buffer. The person or agency undertaking such action shall notify the City within one (1) working day following commencement of the emergency activity. Following the emergency appropriate mitigation shall be implemented and permanent activities, installations or impacts are subject to review and compliance with the applicable standards.
 - a. Authorization. Notwithstanding the provisions of this Chapter, the Administrator may issue a temporary emergency permit prospectively or, in the case of imminent threats to public health, safety or welfare, retroactively, where the anticipated threat or loss may occur before a permit can be issued or modified under the procedures otherwise required by the act and other applicable laws.
 - b. Prior to issuing an emergency permit, the Administrator shall issue a finding that extraordinary circumstances exist and that the potential threat to public health, safety or welfare from the emergency situation is clearly significant and substantial.
 - c. Conditions. Any emergency permit granted shall incorporate, to the greatest extent practicable and feasible but not inconsistent with the emergency situation, the standards and criteria required for non-emergency activities under this act and shall:
 - i. Be limited in duration to the time required to complete the authorized emergency activity, not to exceed 90 days; and
 - ii. Require, within 90-day period, the restoration of any wetland altered as a result of the activity, except that if more than the 90 days from issuance of the emergency permit is required to complete restoration, the emergency permit may be extended to complete this restoration.
 - iii. The person or agency undertaking emergency actions consult with the City Administrator and applicable state or federal agencies within 30 days after the notice of emergency to identify and thereafter implement suitable mitigation requirements.
 - d. Notice. Notice of issuance of an emergency permit shall be published in a newspaper having general circulation in the city of Napavine not later than 10 days after issuance of such permit.

- e. Termination. The emergency permit may be terminated at any time without process upon a determination by the city that the action is no longer necessary to protect human health or the environment.
3. Repair. Repair or replacement of existing structures, infrastructure improvements, utilities, public or private road, dikes, levees or drainage systems, including operation and maintenance of existing facilities, that do not require construction permits, if the activity does not further alter or increase the impact to, or encroach further within, the critical area or buffer and there is no increased risk to life or property as a result of the proposed maintenance or repair.
4. Forest practices. Forest practices regulated and conducted in accordance with the provisions of Chapter 76.09 RCW and forest practices regulations, Chapter 222 WAC, and those that are exempt from Napavine's jurisdiction, provided that forest practice conversions are not exempt – All Class IV conversions are subject to the rules of the Napavine CAO
5. Right-of-way. Activities within the improved public right-of-way or recorded easement. Replacement, modification, installation, or construction of utility facilities, lines, pipes, mains, equipment, or appurtenances, when such facilities are located within the improved portion of the public right-of-way or recorded easement.
6. Chemical applications. The application of herbicides, pesticides, organic or mineral-derived fertilizers, or other hazardous substances, if necessary, provided that their use shall be restricted in accordance with Department of Fish and Wildlife Management Recommendations and the regulations of the Department of Agriculture and the U.S. Environmental Protection Agency and the State Department of Ecology which regulates the use of herbicides to control nuisance weeds and algae in lakes and streams.
7. Minor site investigative work. Work necessary for land use submittals, such as surveys, soil logs, percolation tests, and other related activities, where such activities do not require construction of new roads or significant amounts of excavation. In every case, impacts to the critical area shall be minimized and disturbed areas shall be immediately restored.
8. Boundary markers. Construction or modification of boundary markers or fences.
9. Modifications. Construction and modifications to existing structures that does not increase the footprint of the structure.
10. The removal of the following vegetation with hand labor and light equipment, and vegetation removal that is a hazard to electrical power lines with hand held and walk beside equipment such as mowers and weed eaters in compliance with the provisions contained in the ANSI A300 (Part 1) guidelines, including, but not limited to:
 - a. Invasive non-native weeds;
 - b. English Ivy (*Hedera helix*);
 - c. Himalayan blackberry (*Rubus discolor*, *R. procerus*); and
 - d. Evergreen blackberry (*Rubus laciniatus*).

11. Emergency or hazard tree removal conducted so that habitat impacts are minimized.
 12. Public improvement projects located within existing impervious surface areas.
 13. Public Agency and Utility Exemption.
- B. Exemption request and review process. The proponent of the activity shall submit a completed exemption request form to the Building Official that describes the activity and states the exemption listed in this Section that applies. The Administrator shall review the exemption request to verify that it complies with this Chapter and approve or deny the exemption. If the exemption is approved, it shall be placed on file with the department and the requesting party notified. If the exemption is denied, the proponent may continue in the review process and shall be subject to the requirements of this Chapter.
- C. Minimize impacts. Exempt activities shall minimize impacts to critical areas. All exempted activities shall use reasonable methods to avoid potential adverse impacts to critical areas. To be exempt from this Chapter does not give permission to degrade a critical area or buffer or ignore risk from natural hazards. Any incidental damage to, or alteration of, a critical area or buffer that is not a necessary outcome of the exempted activity shall be restored, rehabilitated, or replaced at the responsible party's expense.

14.010.080 Reasonable use exception

- A. Reasonable Use Exceptions. The following exceptions shall apply. The city shall apply the standards of this chapter to the maximum extent practicable to avoid and minimize adverse impacts on the functions and values of critical areas and buffers. Mitigation of impacts, consistent with this chapter, is required. Reasonable use exceptions include:
1. The placement of modification of one single-family residence and normal accessory structures on a buildable legal lot of record. The city shall employ reasonable discretion in applying the standards of this chapter to limit the proposed location and size of structures and removal of native vegetation.
 2. The expansion of a home or accessory structure on a lot that does not show building or development envelopes, wetlands or wetland buffers on the recorded plat, not to exceed fifty percent (50%) of the existing building footprint.
 3. The replacement of single-wide mobile home with another dwelling and normal accessory structures. Per NDC
 4. Fire hazard clearing recommended by the fire marshal, or consistent with written fire marshal or fire chief guidelines.
- B. General Requirements.
1. The Administrator shall prepare and maintain application forms necessary to implement this subsection.

- C. Application Requirements.
1. Preliminary Review. The provisions for conducting a preliminary review of a proposed reasonable use exception are set forth in NDC 4.010.080.A.
 2. Regulations-General Provisions-Application Filing.
 - a. Reasonable use exception applications shall be reviewed for completeness in accordance with city submittal standards checklists.
 - b. An applicant for a development proposal may file a request for a reasonable use exception which shall include the following information:
 - i. A description of the areas of the site which are critical areas or within setbacks required under this title;
 - ii. A description of the amount of the site which is within setbacks required by other standards of this Title;
 - iii. A description of the proposed development, including a site plan;
 - iv. An analysis of the impact that the amount of development described in subsection 14.010.080.E would have on the critical area(s);
 - v. An analysis of whether any other reasonable use with less impact on the critical area(s) and associated buffer(s) is possible;
 - vi. A design of the proposal so that the amount of development proposed as reasonable use will have the least impact practicable on the critical area(s);
 - vii. An analysis of the modifications needed to the standards of this chapter to accommodate the proposed development;
 - viii. A description of any modifications needed to the required front, side, and rear setbacks; building height; and buffer widths to provide for a reasonable use of the site while providing greater protection to the critical area(s); and
 - ix. Such other information as the city determines is reasonably necessary to evaluate the issue of reasonable use as it relates to the proposed development.
- D. Public Review.
1. The city shall forward a copy of a request for reasonable use exception to the state and federal agencies with jurisdiction over the resource at issue and to all property owners within 300 feet of the subject property using the SEPA process.
- E. Reasonable Use Approval Criteria. The hearing examiner shall approve a reasonable use exception if the examiner determines the following criteria are met:
1. There is no other reasonable use or feasible alternative to the proposed development with less impact on the critical area(s);
 2. The proposed development does not pose a threat to the public health, safety, or welfare on or off site;
 3. Any alteration of the critical area(s) shall be the minimum necessary to allow for reasonable use of property;

4. The proposed development will not result in a “take” of a threatened or endangered species;
5. The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant in subdividing the property or adjusting a boundary line thereby creating the undevelopable condition after the effective date of this chapter; and
6. The proposal mitigates the impacts on the critical area(s) to the maximum extent possible, while still allowing reasonable use of the site. The applicant shall prepare and implement a mitigation and monitoring plan consistent with NDC 4.010.110.C.

14.010.090 Best Available Science

Critical area reports and decisions to alter critical areas shall rely on the Best Available Science to protect the functions and values of critical areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat. Best Available Science is that scientific information applicable to the critical area prepared by local, state or federal natural resource agencies, a qualified scientific professional or team of qualified scientific professionals that is consistent with criteria established in WAC 365-195-900 through WAC 365-195-925.

14.010.100 Development Standards

- A. Authorization required. Within Critical Areas, the city shall prohibit soil excavation, grading, removal of native vegetation species, draining, intentional burning, planting of invasive or nuisance vegetation, placement of structures and new construction on critical areas unless otherwise authorized in this chapter.
 1. These development standards apply to uses on critical areas and within buffers unless otherwise exempted in this title.
 2. In order to approve application for development on lands subject to this chapter, the Administrator shall find that the following standards have been met:
 - i. All reasonable alternatives for locating the development activity in such a way so as to avoid critical areas have been considered and the development activity will be located in the least environmentally sensitive area as practicable and the purpose of this chapter, as described in NDC 4.010.010, is fulfilled. If avoidance is not practicable, as determined by the city, development shall minimize adverse impacts to critical areas and buffers consistent with the mitigation sequencing measures and mitigation and enhancement measures prescribed in the chapter.
 - ii. The city has approved the vegetation removal methods and the removal of native plants has been avoided.
 - iii. All adverse impacts to all affected critical areas and buffers are either avoided or fully mitigated.
 - iv. The plan minimizes cuts and fills.

- v. Soils are not exposed during the rainy season (November 1st through April 30th) and construction activity is limited to the dry season (May 1st through October 31st).
- vi. The Administrator has reviewed and approved an erosion control plan, grading plan, and vegetation removal and replanting plan prior to construction activity.
- vii. All activities have received applicable state and federal permits, and comply with SEPA requirements if the lead agency makes a threshold determination of significance (DS), or mitigated determination of non-significance (MDNS).
- viii. Hydraulic permits are required for any activity occurring within the ordinary high water mark of any state regulated Class I or Class II stream.
- ix. Compliance with this chapter does not constitute compliance with state and federal environmental standards. The applicant shall be responsible for demonstrating such compliance.

B. Review Process.

- 1. The review process shall be the type specified in the NDC for each particular land use action unless otherwise specified in this chapter.
- 2. Applications to develop on critical areas or their buffers shall be subject to review if, within a one-year period, the cumulative impact on critical areas is:
 - a. Disturbance of more than 25 cubic feet of soil;
 - b. An activity, the fair market cost of which is more than \$500.00; or
 - c. The activity involves more than 1,000 square feet of critical areas.
- 3. Standard Requirements. All applications requiring review under this section shall have the following minimum conditions applied:
 - a. Critical area and buffer marking during construction. The location of the outer extent of the critical area and its buffer, if any, shall be marked in the field and such markings shall be maintained throughout the duration of the permit.
 - b. Permanent marking of critical area and buffer. A permanent and perpetual physical demarcation along the upland boundary of the critical area and buffer shall be installed and thereafter maintained. Such demarcation may consist of logs, a tree or hedgerow, wood or wood like fencing, or other prominent physical marking approved by the Administrator. In addition, signs measuring (minimum size 1 foot x 1 foot and posted 3.5 feet above grade) shall be posted at an interval of one (1) per lot or every one hundred (100) feet, whichever is less, and perpetually maintained at locations along the outer perimeter of the critical area and buffer approved by the Administrator worded substantially as follows: “CRITICAL AREA AND BUFFER- PLEASE RETAIN IN A NATURAL STATE.”
 - c. A conservation covenant shall be recorded in a form approved by the city attorney as adequate to incorporate the other restrictions of this section and to give notice of the requirement to obtain a permit prior to engaging in regulated activities within a habitat area or its buffer.

- C. Record of Notice. Prior to issuance of any development or building permit on lands subject to this chapter, the property owner shall record a Record of Notice of Critical Areas, on a form provided by the City, on all properties affected by critical areas and buffers and shall provide the City Clerk with a copy of the recorded notice.
- D. SEPA Review. On a case-by-case basis, the Responsible Official may issue a Determination of Non-significance (DNS) if:
 - 1. The application for development review contains all requested information, including reports, maps and other documents relevant to the proposed activity; and
 - 2. The proposed activity complies with all applicable development review and performance standards; and
 - 3. Compliance with all applicable development standards and performance standards is made a binding condition of land use approval.

14.010.110 Mitigation

- A. Approval. City approval of a mitigation plan is prerequisite for approval of any development activity on critical areas.
 - (a) The applicant shall submit a written request describing the extent and nature of the proposed development activity on critical areas and buffers. The request shall include boundary locations and identification of all designated critical areas and buffers.
 - (b) The application for development shall include a mitigation plan prepared in compliance with this section.
 - (c) The city may require the applicant to prepare special reports evaluating potential adverse impacts upon critical areas and potential mitigation measures as part of the land use application process. These reports may include, but are not limited to, the following: storm water management plan, hydrology, geotechnical or geological engineering and soil reports, grading and erosion control plan, native vegetation report, fish and wildlife assessment and impact report, water quality report, wetlands delineation, and other reports determined necessary by the city.
 - (d) The city shall consult with state and federal resource management agencies and in order to protect wildlife habitat or natural resources values, shall attach such conditions as may be necessary to effectively mitigate identified adverse impacts of the proposed development activity.
 - (e) The city may request third party “peer review” of an application by qualified professionals and may incorporate recommendations from such third party reports in findings approving or denying the application at the applicant’s expense.
 - (f) All reports recommending mitigation shall include provisions for monitoring of programs and replacement of improvements, on an annual basis, consistent with report recommendations and Reports shall be submitted annually for the

first three (3) years following construction and at the completion of years five, seven and 10 if applicable to document milestones, successes, problems, and contingency actions of the compensatory mitigation.

- (g) The city may require replacement mitigation to be established and functional prior to project construction.

B. No Net Loss.

- 1. Mitigation efforts, when allowed, shall ensure that development activity does not yield a net loss of the area or function of the critical areas. No net loss shall be measured by:
 - a. Avoidance or mitigation of adverse impacts to fish life; or
 - b. Avoidance or mitigation of net loss of habitat functions necessary to sustain fish life; or
 - c. Avoidance or mitigation of loss of area by habitat type.
- 2. Mitigation to achieve no net loss should benefit those organisms being impacted.

C. Mitigation Plan. A mitigation plan shall provide for the design, implementation, maintenance, and monitoring of mitigation measures. A mitigation plan shall include but is not limited to the following:

- 1. Methods and techniques to be used to mitigate impacts to critical area;
- 2. Explanation of methods and techniques, such as construction practices to be used to implement the identified mitigation methods;
- 3. Methods and techniques for monitoring said mitigation and a proposed time-frame for such monitoring.

D. Storm water management. Any development on critical areas shall be consistent with Washington State Department of Ecology February 2005 “Storm water Management Manual for Western Washington,” Volumes I-V WSDE Publication #05-10-029 through 05-10-033, Olympia, WA

E. Buffer Enhancement. Where a development avails itself of the buffer reduction opportunity described in this chapter, the following enhancement standards may apply:

- 1. The applicant shall submit to the city a written request describing the extent and nature of the proposed development activity and shall submit a written enhancement plan.
- 2. The enhancement plan shall include calculations and maps that illustrate:
 - a. Required boundary locations of all critical areas and attendant buffers;
 - b. Proposed buffer areas after reduction;
 - c. Proposed areas to receive enhancement measures;
 - d. A timeline for completion of the enhancement plan;
 - e. Methods and techniques to be used to mitigate impacts to critical areas;
 - f. An explanation of methods and techniques, such as construction practices to be used to implement the identified mitigation methods; and

- g. Methods and techniques for monitoring said mitigation and a proposed time-frame for monitoring.
 3. The enhanced area shall functionally be of greater biological values, including habitat value, and with greater hydrological values including storage capacity.
 4. Enhancement shall occur on-site.
 5. Wet ponds established and maintained for control of surface water shall not constitute mitigation for wetland alterations.
 6. Surface water management or flood control shall not be considered enhancement.
- F. Mitigation ratios. Required mitigation ratios are contained in Appendix B.

14.010.120 Critical lands

A. Critical Aquifer Recharge Areas.

1. Applicability. Due to the exceptional susceptibility and/or vulnerability of ground waters underlying aquifer recharge areas to contamination and the importance of such ground waters as sources of public water supply, it is the intent of this chapter to safeguard ground water resources by mitigating or precluding future discharges of contaminants from new land use activities. The provisions of this chapter shall apply to regulated activities specified herein within those portions of the Napavine UGA.
2. Designation. Lands within the Napavine UGA meeting the classification criteria for aquifer recharge areas are hereby officially designated, pursuant to the mandate of RCW 36.70A.060 and 36.70A.170 as critical aquifer recharge areas.
3. Aquifer Recharge Areas-Rating System Determinations. In cases of disputed soil series, or series boundary and resulting aquifer recharge category, the Administrator shall use all available information including reports by the United States Geological Survey and technical assessments submitted in accordance with this chapter to make the final determination. This may include consultation with USDA Natural Resource Conservation Service, the Washington Department of Natural Resources Division of Geology and Earth Resources or a soil scientist certified by the American Registry of Certified Professionals in agronomy, crops and soils. In areas that have been disturbed or the surface soil removed as in gravel pits, the Administrator shall determine the most appropriate category with geological and hydrological information.
4. Demonstration of no adverse impact. The applicant shall demonstrate, through the land use approval process, that the proposed activity will not have any adverse impacts on ground water in critical aquifer recharge areas, based on the Safe Drinking Water Act and the Wellhead Protection Area Program, pursuant to Public Water Supplies, Chapter 246-290 WAC; Water Quality Standards for Ground Waters of the State of Washington, Chapter 173-200 WAC; and Dangerous Waste Regulations, Chapter 173-303 WAC. By this reference, Chapters 173-200, 173-303, and 246-290 WAC, as written and hereafter updated will be part of this chapter.

5. Mitigation Conditions. The Administrator may impose any reasonable condition necessary to ensure that the specific use or activity will not significantly degrade ground water quality. Such conditions may include, but are not limited to the following:
 - a. A written management plan for waste water, hazardous products and hazardous waste, petroleum products and petroleum waste and other materials judged by the Administrator to be detrimental to ground water quality, that when implemented using best management practices, will prevent ground water contamination;
 - b. Upgrading available on-site spill response equipment;
 - c. Employee spill response training;
 - d. Emergency service coordination measures; and
 - e. Ground water monitoring.

B. Fish and Wildlife Habitat Conservation Areas.

1. Fish & Wildlife Areas. Identified sensitive fish and wildlife habitat areas shall be preserved or adverse impacts mitigated. Fish and wildlife areas are divided into four basic categories:
 - a. Riparian.
 - i. Overwhelming evidence exists to support the use of riparian buffers of adequate size to maintain healthy productive fish and wildlife habitat. Although riparian areas comprise only a small portion of the surface landscape, approximately 90 percent of Washington's land-based vertebrate species prefer or are dependent upon riparian habitat for essential life.
 - ii. Riparian habitat areas may include frequently flooded areas, critical recharge areas and wetlands. Riparian habitat areas are those areas immediately adjacent to waterways that contain elements of both aquatic and terrestrial ecosystems that mutually influence each other. WAC 222-16-020, relating to stream classification shall be the city's classification system for streams.
 - b. Endangered or Threatened.
 - i. Areas that have a primary association with federal listed endangered or threatened species of fish or wildlife and which if altered may reduce the likelihood that the species will maintain and reproduce over the long term. Endangered or threatened species found in the Napavine corporate limits and urban growth area.
 - ii. Point locations are the specific sites (nests, dens, etc.) where critical wildlife species are found. Many of these sites have been identified and mapped by the Washington Department of Fish and Wildlife (WDFW). Point locations are lands where species designated as endangered or threatened have a primary association with that land. Development of such lands shall be controlled in accordance with a site specific fish and wildlife management plan consistent with the WDFW's priority habitats and species management recommendations and prepared by a qualified

consultant. The Washington Department of Fish and Wildlife should be consulted to provide a technical review and an advisory role in the decision making process.

- c. Local Habitat Areas.
 - i. Species of local importance are those species that are of local concern due to their population status or their sensitivity to habitat manipulation of that are game species.
 - ii. Habitats of local importance include a seasonal range or habitat element with which a given species has a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long-term. These might include areas of high relative density or species richness, breeding habitat, winter range and movement corridors. These might also include habitats that are of limited availability or high vulnerability to alteration such as cliffs, talus and wetlands.
 - iii. Local habitat areas include those areas specifically identified as local habitat areas on the city’s adopted critical areas map and background maps used to prepare the critical areas map.
 - A. The city or private citizens may nominate areas for consideration as local habitat areas and for inclusion on the critical areas map.
 - B. The applicant shall be responsible for preparing the nomination using city prescribed forms. The applicant shall pay a processing fee of one percent of the assessed value of the proposed area as zoned at the time of application.
 - C. The hearing examiner in reliance upon all best available science in the hearing record shall make a determination of whether the nominated area qualifies as a local habitat area.
- d. Priority Habitat Species (PHS) Areas. Priority species include State endangered, threatened, sensitive, and candidate species; as well as vulnerable population aggregations and vulnerable species of special recreational, commercial or tribal importance. Priority habitats include vegetation types, a specific successional stage, or habitat features.

Table 14.010.120.B.1 Priority Habitat & Species Buffers

Habitat Type	Critical Zone	Protected Buffer
Local Habitat	Delineated	Use BAS for species.
Non-riparian Priority Habitat & Species	Delineated	300 feet or threshold based upon consultation with WDFW or through the city’s Peer review process.
Subject to the ESA	Delineated	Use BAS for species up to 1,300 review threshold distance.

- 2. Education and information. A voluntary education program to explain the need for and methods of habitat management may provide form long-term

protection and enhancement of critical fish and wildlife habitat areas. By informing citizens about the declining populations of several fish and wildlife species in Napavine, the diminishing animal habitat available and the management techniques that individuals can use to preserve and restore fish and wildlife habitat areas, the City can foster good stewardship of the land by property owners.

- a. The City will provide educational materials and lists of additional sources of information to applicants proposing regulated activities in the vicinity of critical fish and wildlife habitat areas. Materials will be selected from a variety of state and local resources.
 - b. The City may accumulate information on the number of proposed activities associated with fish and wildlife habitat areas as identified by this Chapter and indicated by state and local government maps to be in the vicinity of identified critical fish and wildlife habitats. Information shall include the number of single-family residences and other development occurring in the vicinity of critical fish and wildlife areas. Based on this information additional regulations could be developed.
 - c. The education and information program is an important adjunct to the implementation of the regulatory provisions of this Chapter.
3. Species and Habitat Assessment Report. A Critical Area Report (CAR) is required where specifically indicated and when an activity is proposed within a critical area or buffer that is not specifically exempt or permitted with review. A CAR should be consistent with the following standards:
- a. The CAR must be completed by a qualified professional who shall use scientifically valid and professionally recognized and accepted methods and studies or best available science in the analysis of critical area data and field reconnaissance and reference the source of science used. The CAR shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this Chapter.
 - b. Minimum CAR contents. At a minimum the report shall contain the following:
 - i. The name and contact information of the applicant, the names and address of the qualified professional who prepared the report, a description of the proposal and identification of the permit requested;
 - ii. A copy of the site plan for the development proposal showing;
 - iii. Identified critical areas, buffers and development proposal with dimensions;
 - iv. Limits of any areas to be cleared;
 - v. A description of the proposed storm water management plan for the development and consideration of impacts to drainage alterations;
 - vi. General location and types of vegetation;
 - vii. The dates, names, and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site;
 - viii. Identification and characterization of all critical areas, wetlands, water bodies and buffers adjacent to the proposed project area;

- ix. A statement specifying the accuracy of the report and all assumptions made and relied upon;
 - x. A description of reasonable efforts made to apply mitigation sequencing pursuant to mitigation sequencing, NDC 4.010.120, to avoid, minimize and mitigate impacts to critical areas;
 - xi. Plans for adequate mitigation as needed to offset any impacts in accordance with mitigation plan requirements, NDC 4.010.120, including but not limited to:
 - A. The impacts of any proposed development within or adjacent to a critical area of buffer on the critical area;
 - B. The impacts of any proposed alteration of a critical area or buffer on the development proposal, other properties and the environment;
 - C. A discussion of the performance standards applicable to the critical area and proposed activity;
 - D. Financial guarantees to ensure compliance; and
 - E. Any additional information required for the critical area as specified in the corresponding chapter.
 - c. Unless otherwise provided, a CAR may be supplemented by or composed in whole or in part of any reports of studies required by other laws and regulations or previously prepared, by a qualified professional for and applicable to the development proposal site as approved by the Administrator.
 - d. The Administrator may waive specific requirements of the critical area reports where less information is required to adequately address the impacts to the critical area or where existing information is on file with the city that addresses the impacts.
 - e. The Administrator may require additional information that is necessary to determine compliance with the standards of this Chapter.
 - f. A qualified professional shall be a person who has the education, training, experience and/or certification that meets the specific requirements to evaluate fish and wildlife habitat.
4. Best Available Science. Habitat reports and decisions to alter habitat areas shall rely on the Best Available Science to protect the functions and values of critical habitat areas and must give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fish and their habitat.
 5. Habitat Buffers. Habitat conservation areas and buffers are assigned to the lands and regulated by this section according to Tables 14.010.120.B.1. Development activities are restricted within riparian buffer areas as indicated in Tables 14.010.0120.B.5.
 6. Stream types. Water types are defined and mapped based on WAC 222-16-030 or 222-16-031, whichever is in effect on the date of application. While the WAC definitions control generally, Type S streams include shorelines of the state and have flows averaging 20 or more cubic feet per second; Type F streams are those that are non-Type S but still provide fish habitat; and Type N streams do not have fish habitat and are either perennial or seasonal. Erosion

gullies or rills, and streams which are man-made, or streams less than six (6) inches wide or not having a defined bed and/or bank are not included.

7. Riparian Area Ecosystem Buffers.
 - a. Functionally Isolated Buffer Areas. Areas which are functionally separated from a stream and do not protect the stream from adverse impacts due to pre-existing roads, structures or vertical separation shall be excluded from buffers otherwise required by this Chapter.
 - b. Buffers Generally. Regulated activities proposed along rivers and streams shall provide for habitat protection.
 - i. The riparian ecosystem buffer is generally an area of no building consisting of undisturbed natural vegetation. The buffer shall be required along all streams as classified by the DNR water typing classification system (WAC 222-16-030). The buffer shall extend landward from the ordinary high water mark of the water body.
 - ii. The buffer of a river or stream shall not extend landward beyond an existing substantial improvement such as an improved road, dike, levee or a permanent structure which reduces the impact proposed activities would have on the river or stream.
 - c. Building Setback and Construction near Buffer. A minimum setback of fifteen (15) feet from buffer shall be required for construction of any impervious surface(s) greater than 120 square feet of base coverage from the head or toe of a slope where the overall slope is greater than 35%. Clearing, grading and filling within 15 feet of the buffer setback shall be allowed only when the applicant can demonstrate that native vegetation within the buffer will not be damaged. The additional impervious surfaces setback from the toe and head of slope may be waived if the applicant demonstrates, by credible evidence, that the proposed impervious surface will not significantly affect the stability of the slope.
 - d. Marking of the Buffer Area. The edge of the buffer area shall be clearly staked, flagged and fenced prior to and through completion of the construction. The buffer boundary markers shall be clearly visible, durable and permanently affixed to the ground.
 - e. Fencing from Farm Animals. Permanent fencing shall be required from the buffer when farm animals are introduced on a site.
 - f. Riparian Base Buffers are enumerated below in Table 14.010.120(B)(5):

Table 14.010.120.B.5 Riparian Area Buffers

Fish & Wildlife Habitat Areas	Characteristics	Riparian Ecosystem Area Buffer (in feet)
RIPARIAN AREAS		
Type S (fish bearing)	Newaukum River	200
Type F (perennial or fish bearing)	stream < 5 ft wide, if fish bearing	100
Type N streams (non fish bearing)	Less than 3 ft in width on average	50

8. Mitigation.
 - a. Approval. City approval of a mitigation plan is a prerequisite for approval of any development activities within a designated habitat area or habitat buffer.
 - b. Application. The applicant shall submit a written request describing the extent and nature of the proposed development activity on Critical Areas and buffers. The request shall include boundary locations of all critical areas and associated buffers.
 - i. The application for development shall include a mitigation plan prepared in compliance with this section.
 - ii. The City may require the applicant to prepare special reports evaluating potential adverse impacts upon critical areas and potential mitigation measures as part of the land use application process. These reports may include but are not limited to the following: Storm Water Management Plan, Hydrology, Geology, Soils Report, Grading and Erosion Control Plan, Native Vegetation Report, Fish and Wildlife Assessment and Impact Report, Water Quality Report, Wetlands Delineation and other reports determined necessary by the City.
 - c. The City may consult with state and federal resource management agencies and in order to protect wildlife habitat or natural resource values, shall attach such conditions as may be necessary to effectively mitigate identified adverse impacts of the proposed development activity.
 - d. The City may request third party “peer review” of an application by qualified professionals and may incorporate recommendations from such third party reports in findings approving or denying the application.
 - e. All reports recommending mitigation shall include provisions for monitoring of programs and replacement of improvements on an annual basis, consistent with report recommendations and at years one (1), three (3), five (5), seven (7) and if mitigation measures will result in reclassification of the resource to a higher category, year ten (10) shall be required.
 - f. The City may require replacement mitigation to be established and functional concurrent with project construction.
9. No Net Loss.
 - a. Mitigation efforts, when allowed, shall ensure that development activity does not yield a net loss of the area or function, including fish and wildlife habitat values of the Critical Area. The City’s preferred approach to mitigating impacts is mitigation sequencing. (see section 14.010.030) No net loss shall be measured by:
 - i. Avoidance or mitigation of adverse impacts to fish and wildlife; or
 - ii. Avoidance or mitigation of net loss of habitat functions necessary to sustain fish life; or
 - iii. Avoidance or mitigation of loss of area by habitat type.

- b. Mitigation to achieve no-net-loss should benefit those organisms being impacted.
 - c. Where development results in a loss of habitat area, the mitigation plan shall demonstrate that habitat area is replaced at an equal or greater functional value(s).
 - i. Wherever possible replacement or enhancement shall occur on-site.
 - ii. However, where the applicant can demonstrate that off-site mitigation will provide greater functional values, the City may approve such off-site mitigation.
10. Mitigation Plan. A mitigation plan shall provide for the design, implementation, maintenance and monitoring of mitigation measures. A mitigation plan shall include but is not limited to the following:
- a. Methods and techniques to be used to mitigate impacts to the critical area;
 - b. Explanation of methods and techniques, such as, construction practices to be used to implement the identified mitigation methods;
 - c. Methods and techniques for monitoring the proposed mitigation and time-frame for such monitoring.
11. Buffer reduction. The city may allow the reduction of Np and Ns stream buffers by no more than 50% of the required buffer width if the area proposed for buffer reduction:
- a. Is currently adversely impacted by development such as roads, parking areas, buildings and public facilities; or
 - b. Has primarily non-native vegetation, such as grass pasture;
 - c. The proposed reduction will not significantly reduce the water quality and habitat functions of the buffer.
 - d. When buffer reduction is allowed, the applicant shall provide the city with a Vegetative Buffer Enhancement plan for review and approval.
 - e. Storm water facilities are not permitted in the remainder buffers reduced by operation of this buffer reduction provision.
12. Vegetative Buffer Enhancement. Where the city permits the use of buffer reduction opportunity described in this section, the following enhancement standards shall apply:
- a. The applicant shall submit to the City a written request describing the extent and nature of the proposed development activity and shall submit an enhancement plan prepared by a professional biologist, landscape architect or other equally qualified person.
 - b. Buffer shall not be reduced to less than 50% the base buffer width.
 - c. The enhancement plan shall include calculations and maps that illustrate:
 - i. Required boundary locations of all critical areas and associated buffers;
 - ii. Proposed buffer areas after reduction;
 - iii. The nature and extent of the enhancement measures proposed;
 - iv. A timeline for completion of the enhancement plan;
 - v. A financial surety mechanism acceptable to the city.
 - d. Methods and techniques used to mitigate impacts to critical areas, consistent with best management practices

- e. An explanation of methods and techniques such as, construction practices to be used to implement to the identified mitigation methods
 - f. Methods and techniques for monitoring said mitigation and a proposed time-frame for monitoring
 - g. The enhanced area shall be of equal or greater habitat value(s) based on best available science
 - h. Enhancement shall occur on-site, unless the applicant can demonstrate that off-site mitigation will provide greater functional value(s)
 - i. The city may elect to submit the Vegetative Buffer Enhancement Plan to one or more qualified expert for peer review.
13. Standard Requirements. All applications requiring review under this section shall have the following minimum conditions applied:
- a. Marking Buffer During Construction. The location of the outer extent of the habitat buffer or if no buffer is required the habitat area shall be marked in the field and such markings shall be maintained throughout the duration of the permit.
 - b. Permanent Marking of Buffer Area. A permanent and perpetual physical demarcation along the upland boundary of the habitat buffer area shall be installed and thereafter maintained. Such demarcation may consist of logs, a tree or hedgerow, wood or wood like fencing, or other prominent physical marking approved by the Administrator. In addition, signs measuring (minimum size 1 foot x 1 foot and posted 3.5 feet above grade) shall be posted at an interval of one (1) per lot of every one hundred (100) feet, whichever is less, and perpetually maintained at locations along the outer perimeter of the habitat buffer approved by the Administrator worded substantially as follows: "HABITAT BUFFER-PLEASE RETAIN IN A NATURAL STATE."
 - c. A conservation covenant shall be recorded in a form approved by the city attorney as adequate to incorporate the other restrictions of this section and to give notice of the requirement to obtain a permit prior to engaging in regulated activities within a habitat area or its buffer.

C. Frequently Flooded Areas

- 1. Basis for Establishing the Areas of Special Flood Hazard. The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and engineering report entitled "The Flood Insurance Study for Napavine, Washington" with accompanying FIRM and any revisions thereto are hereby adopted by reference and declared to be a part of this chapter. The flood insurance study is on file at the office of the city clerk/treasurer. The best available science shall be the basis for regulation until a new FIRM is issued which incorporates the data used to inform this chapter.
- 2. Compliance. No structure or land shall hereafter be constructed, located, extended, converted or altered without full compliance with the terms of this chapter and other applicable regulations.

3. Abrogation and Greater Restrictions. Where this chapter and another code, ordinance, easement, covenant or deed restriction conflict or overlap that which imposes the more stringent restriction shall prevail.
4. Interpretation. In the interpretation and application of this section all provisions shall be:
 - a. Considered as minimum requirements;
 - b. Liberally construed in favor of the governing body; and
 - c. Deemed neither to limit nor repeal any other powers granted under state statutes.
5. Interpretation of FIRM Boundaries. The local administrator, the governing body or its agent or employee may interpret and apply when necessary the exact location of the boundaries of the areas of special flood hazards where there appears to be a conflict between a mapped boundary and actual field conditions. Any aggrieved person may contest the location of the boundary and shall be given a reasonable opportunity to appeal the interpretation to the local administrator and then the governing body. Such appeal shall be granted consistent with the standards of Section 1910.6 of the Rules and Regulations of the National Flood Insurance Program located at 24 CFR 1909 et seq.
6. Warning and Disclaimer of Liability. The degree of flood protection required by this chapter is considered reasonable for regulatory purposes and is based upon scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by manmade or natural causes. This chapter does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This chapter shall not create liability on the part of the city of Napavine, any officer or employee thereof, or the Federal Emergency Management agency or Federal Insurance Administration for any flood damages that result from reliance on this chapter or any administrative decision lawfully made hereunder.
7. Floodplain (FP) Combining District. A floodplain (FP) combining district is established and shall be applied to all 100-year floodplains identified on the flood insurance study maps, which have been adopted by reference. The land use and siting provisions of these areas shall be in addition to other zoning provisions applied. Two distinct areas are recognized within the FP district: the “floodway” area and the “floodway fringe” area.
8. Regulatory Area. The areas for state and local floodplain management regulations shall be those areas subject to a base (100-year) flood (except as noted for siting of critical facilities). Base floodplains are designated as special flood hazard areas on the most recent maps provided by the Federal Emergency Management Agency for the National Flood Insurance Program. Best available information shall be used if these maps are not available or sufficient.
9. Relationship to Other Requirements. Land uses in the floodplain combining district shall be subject to all relevant local, state or federal regulations including those of the underlying zoning district. Where applicable permit requirements under the Shoreline Management Act (Chapter 90.58 RCW), or

the State Flood Control Zone Act (Chapter 86.16 RCW) may be substituted for permits required under this chapter provided that the standards of this chapter are applied.

10. Criteria for Land Management and Use. The standards and definitions contained in 44 CFR Parts 59 and 60 for the National Flood Insurance Program are adopted by reference as the minimum state standards.
11. Uses Permitted in the Floodplain (FP) Combining District. Park, recreational, agricultural, and other similar open space uses are allowed in the underlying zoning district and not involving structures, fill or storage of equipment are permitted outright in the FP district.
12. Uses Prohibited in the Floodway. Structures for human habitation and other structures or works posing a high flood damage potential are prohibited in the floodway, except for the replacement of structures or works, single-family residences in accordance with WAC 508-60-040 and travel trailers subject to the provisions set forth in this chapter. Any use other than those permitted outright in a floodway shall be subject to the terms of a floodplain.
13. Uses Allowed Under a Floodplain Permit. All other uses permitted in the zoning district with which the FP district has been combined are allowed in the floodway fringe areas subject to the terms of a floodplain permit.
14. A floodplain permit shall be obtained before construction or development begins within any area of special flood hazard. The permit shall be required for all structures including manufactured homes and other development. Permit application forms shall be furnished by the Administrator. The application shall include, but not limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question, and existing or proposed structures, fill, storage of materials, and drainage facilities. Specifically the following information is required:
 - a. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;
 - b. Elevation in relation to mean sea level to which any structure has been flood proofed;
 - c. Certification by a registered professional engineer or architect that the flood proofing methods for any nonresidential structure meet the flood proofing requirements; and
 - d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
15. Designation of the Local Administrator. The administrator is authorized to administer and implement this title by granting or denying floodplain permit applications in accordance with its provisions.
16. Duties and Responsibilities of the Local Administrator. Duties of the local administrator, if applicable shall include, but not limited to:
 - a. Development Review.
 - i. Review all proposed developments to determine whether or not a floodplain permit is required.

- ii. Review all proposed developments with respect to the flood insurance study maps and zoning district boundaries. Make interpretations where needed as to the exact location of special flood hazard area boundaries.
- b. Permit Review.
 - i. Review all proposed development permits to determine that the permit requirements of this title have been satisfied.
 - ii. Review all proposed development permits to determine that all necessary permits have been obtained from those federal, state or local governmental agencies from which prior approval is required.
 - iii. Review all proposed development permits to determine if the proposed development is located in the floodway. If located in the floodway assure that the encroachment provisions are met.
- c. Use of Other Base Flood Data. When base flood elevation data has not been provided in accordance with subsection (C)(1) of this section (Basis for Establishing the Areas of Special Flood Hazard), the Administrator shall obtain, review and reasonably utilize any base flood elevation and floodway data available from an agency of federal or state government, or other sources in order to administer this section including specific standards for residential construction, nonresidential construction and floodways and floodway requirements.
- d. Information to be Obtained and Maintained.
 - i. Where base flood elevation data is provided through the flood insurance study or required as in subsection (C)(1) of this section, obtain and record the actual elevation (in relation to mean sea level) of the lowest habitable floor (including basement) of all new or substantially improved structures and whether or not the structure contains a basement.
 - ii. For all new or substantially improved flood proofed non-residential structures the local administrator shall:
 - A. Verify and record the actual elevation (in relation to mean sea level) to which any non-residential structure has been flood proofed;
 - B. Maintain the flood proofing certifications;
 - C. Maintain for public inspection all records pertaining to the provisions of this chapter;
 - D. Notify adjacent communities and the Washington State Department of Ecology prior to any alteration or relocation of a watercourse and submit evidence of such notification to the Federal Insurance Administration;
 - E. Require that maintenance is provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished; and
 - F. Interpretation of FIRM Boundaries. Make interpretation, where needed, as to exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation.

17. Variance Procedure-Additional State Requirements. The variance procedure contained in 44 CFR Part 60.6 and this title shall apply to the additional state requirements contained in WAC 173-158-060 and 173-158-070, unless an activity or use is expressly prohibited therein.
18. Appeal and Review of City Action.
 - a. A person with standing may appeal the approval or denial of a floodplain permit.
 - i. In acting on appeals or permit approval requests, the city shall consider all technical evaluations, all relevant factors and standards specified in other sections of this chapter and:
 - A. The danger that materials may be swept onto other lands to the injury of others;
 - B. The danger of life and property due to flooding or erosion damage;
 - C. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - D. The importance of the services provided by the proposed facility to the community;
 - E. The necessity to the facility of the waterfront location where applicable;
 - F. The availability of alternative locations for the proposed use that are not subject to flooding or erosion damage;
 - G. The compatibility of the proposed use with existing and anticipated development;
 - H. The relationship of the proposed use to the comprehensive plan and floodplain management program for that area;
 - I. The safety of access to the property in times of flood for ordinary and emergency vehicles;
 - J. The expected heights, velocity, duration, rate of rise and sediment transport of the floodwaters, and the effects of wave action if applicable, expected at the site; and
 - K. The costs of providing governmental services during and after flood conditions including maintenance and repair of public facilities and facilities such as sewer, gas, electrical, water systems, streets and bridges.
 - ii. Upon consideration of the above factors and the purposes of this chapter, the appeal hearing body may attach such conditions to actions on appeals and approvals as it deems necessary to further the purpose of this chapter.
 - iii. The Administrator shall maintain the records of all appeal and approval actions of the city of Napavine.
19. Conditions for Variances.
 - a. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood

- level. As the lot size increases the technical justification required for issuing the variance increases.
- b. Variances may be issued for the reconstruction, rehabilitation or restoration of structures listed on the National Register of Historic Places or the State Inventory of Historic Places.
 - c. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
 - d. Variances shall only be issued upon a determination that the variance is the minimum necessary considering the flood hazard to afford relief.
 - e. Variances shall only be issued upon:
 - i. Showing a good and sufficient cause;
 - ii. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - iii. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public or conflict with existing local laws or ordinances.
 - f. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations shall be quite rare.
 - g. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of flood proofing than watertight or dry-flood proofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except subsection (C)(20)(a) of this section and otherwise complies with anchoring and construction materials and methods general standards below.
 - h. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
20. Penalties and Enforcement.
- a. The attorney general or the attorney for the local government shall bring such injunctive, declaratory or other actions as are necessary to ensure compliance with this chapter.
 - b. Any person who fails to comply with this chapter shall also be subject to a civil penalty not to exceed \$1000 for each violation. Each violation or each day of noncompliance shall constitute a separate violation.
 - c. The penalty provided for in this section shall be imposed by a notice in writing either by certified mail with return receipt requested or by personal service to the person incurring the same from the department or local government, describing the violation with reasonable particularity and ordering the act or acts constituting the violation or violations to cease and

- desist or in appropriate cases, requiring necessary corrective action to be taken within a specific and reasonable time.
- d. Any penalty imposed pursuant to this section by the department shall be subject to review by the pollution control hearing board. Any penalty imposed pursuant to this section by the city shall be subject to review by the city council. Any penalty jointly imposed by the department and city shall be appealed to the pollution control hearings board.
21. General Standards. In all areas of special flood hazards the following standards set forth in this article are required.
- a. Anchoring.
 - i. All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
 - ii. All manufactured homes must likewise be anchored to prevent flotation, collapse or lateral movement and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
 - b. Construction Materials and Methods.
 - i. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 - ii. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
 - iii. Electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
 - c. Utilities.
 - i. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
 - ii. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters;
 - iii. On-site waste disposal systems shall be located to avoid impairment to them or contamination from the during flooding; and
 - iv. Water well shall be located on high ground outside the floodway.
 - d. Subdivision Proposals.
 - i. All subdivision proposals shall be consistent with the need to minimize flood damage;
 - ii. All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
 - iii. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
 - iv. Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be generated for

- subdivision proposals and other proposed developments which contain at least 50 lots or five acres (whichever is less).
- e. Review of Building Permits. Where elevation data is not available either through the flood insurance study or from another authoritative source, applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc. where available. Failure to elevate at least two feet above grade in these zones may result in higher insurance rates.
22. Additional Standards.
- a. Critical Facilities.
 - i. Critical facilities should be afforded additional flood protection due to their nature. The city shall use the 500-year frequency flood as a minimum standard instead of the 100-year frequency flood as used for other types of development.
 - ii. Construction of new critical facilities shall be, to the extent possible, located outside the limits of the 500-year floodplain as identified on the city's FIRM. Construction of new critical facilities shall be permissible within the 500-year frequency floodplain if no feasible alternative site is available. Critical facilities constructed within the 500-year frequency floodplain shall have the lowest floor elevated to or above the level of the 500-year frequency flood or the flood protection elevation, whichever is greater. Flood proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into flood waters.
 - iii. Access routes elevated to or above the level of the 500-year frequency flood shall be provided to all critical facilities to the extent possible.
 - b. Flood Protection Elevation. In order to account for the impacts of future development on flood depths and in order to ensure the least expensive insurance rates for floodplain occupants, all development within special flood hazard areas which requires elevation of flood proofing shall be elevated or flood proofed to the flood protection elevation (base flood elevation plus one foot).
23. Specific Standards. In all areas of special flood hazards where base flood elevation data has been provided as set forth in subsection (C)(1) of this section, Basis for Establishing the Areas of Special Flood Hazard, or (C)(17)(c) of this section, Use of Other Base Flood Data, the following provisions are required:
- a. Residential Construction.
 - i. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated to or above one foot above the base flood elevation.
 - ii. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalized hydrostatic flood forces on exterior walls by allowing for the entry and

exit of flood waters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

- A. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - B. The bottom of all openings shall be no higher than one foot above grade.
 - C. Openings may be equipped with screens, louvers or other coverings or devices; provided that they permit the automatic entry and exit of flood waters.
- b. Nonresidential Construction. New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor including basement, elevated to the level of one foot above the base flood elevation or together with attendant utility and sanitary facilities shall:
- i. Be flood proofed so that below the base flood level the structure is watertight with wall substantially impermeable to the passage of water;
 - ii. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
 - iii. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official;
 - iv. Nonresidential structures that are elevated not flood proofed must meet the same standards for space below the lowest flood as described in this subsection (C)(24)(b) of this section;
 - v. Applicants flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood proofed level (e.g. a building constructed to the base flood level will be rated as one foot below that level).
24. Manufactured Homes. All manufactured homes to be placed or substantially improved within Zones A1-30, AH and AE shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is at or above one foot above the base flood elevation and be securely anchored to an adequately anchored foundation system to resist flotation, collapse and lateral movement.
25. Recreational Vehicles. Recreational vehicles placed on sites are required to either:
- a. Be on site for fewer than 180 consecutive days;
 - b. Be fully licensed and ready for highway use on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices and have no permanently attached additions; or

- c. Meet the requirements for a manufactured home and the elevation and anchoring requirements for manufactured homes; may be allowed in the floodway and floodway fringe areas on a temporary basis.
26. Floodways and Floodway Requirements.
- a. Special Flood Hazard Areas with Designated Floodways. In addition to those NFIP requirements for designated floodways, the city shall restrict land uses within such areas to include the prohibition of construction or reconstruction of residential structures except for:
 - i. Repairs, reconstruction or improvements to a structure which do not increase the ground floor area; and
 - ii. Repairs, reconstruction or improvements to a structure the cost of which does not exceed 50 percent of the market value of the structure either:
 - A. Before the repair, reconstruction or improvement is started, or
 - B. If the structure has been damaged and is being restored before the damage occurred. Any project for improvement of a structure to correct existing violations of state or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions or to structures identified as historic places shall not be included in the 50 percent determination.
 - b. Special Flood Hazard Areas Without Designated Floodways. When a regulatory floodway for a stream has not been designated the city may require that applicants for new construction and substantial improvements reasonably utilize the best available information from federal, state or other sources to consider the cumulative effect of existing, proposed and anticipated future development and determine that the increase in the water surface elevations of the base flood will not be more than one foot at any point in the community. Building and development near streams without a designated floodway shall comply with the requirement of 44 CFR 60.3 (b)(3) and (4) and (C)(10) of the NFIP regulations adopted by reference.
 - c. Located within areas of special flood hazard established in section (C)(1) of this section are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles and erosion potential, the following provisions apply:
 - i. Prohibit encroachments including fill, new construction, substantial improvements and other development unless certification by a registered professional engineer or architect is provided demonstrating that encroachments shall not result in any increase in flood levels during the occurrence of the base flood discharge.
 - ii. If subsection (C)(27)(c)(I) of this section is satisfied all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of this article.
 - iii. Prohibit the placement of any manufactured homes.
27. Encroachments. The cumulative effect of any proposed development when combined with all other existing and anticipated development shall not

increase the water surface elevation of the base flood more than one foot at any point.

D. Geologically Hazardous Areas, Erosion Hazards and Steep Slopes

1. Classification.
 - a. Steep Slopes.
 - i. Steep slopes are lands with slope of 30% or greater.
 - ii. Slope gradient shall be measured in two-foot contours in ten-foot intervals.
 - iii. Slopes greater than 15 percent and less than 30 percent are generally considered buildable; however if the Administrator in reliance upon evidence in the record or upon knowledge within the community, that a similarly situated slope between 15% and 30% has previously exhibited movement or substantial instability, the Administrator may find that the subject slope is a steep slope, for purposes of land use review and may require an applicant to provide substantial evidence, prepared by a qualified professional, a geotechnical or geological engineer, that the slopes within the proposed development area are stable and capable of safely supporting the proposed development.
 - b. Erosion hazard areas include severe and moderate erosion hazard areas.
 - i. Severe erosion hazard areas are those areas that have severe or very severe erosion potential as detailed in the soil descriptions contained in the Soil Survey of Lewis County Area, Washington, 1987, Soil Conservation Service, USDA.
 - ii. Moderate erosion hazard areas are those areas that have moderate erosion potential as detailed in the soil descriptions contained in the Soil Survey of Lewis County Area, Washington, 1987, Soil Conservation Service, USDA.
 - c. Landslide hazard areas are those areas meeting any of the following criteria:
 - i. Areas with evidence of failure, such as areas designated as quaternary slumps, earth flows, mudflows or landslides including those areas shown on maps published by the United States Geological Survey or Department of Natural Resources Division of Geology and Earth Resources, areas that show evidence of historical failure or instability, including, but not limited to, back-rotated benches on slopes; areas with structures that exhibit structural damage such as settling and racking of building foundations; areas that have toppling, leaning or bowed trees caused by ground surface movement and areas that show past sloughing or calving of bluff sediments resulting in a vertical or steep bluff face with little or no vegetation;
 - ii. Areas that are rated as unstable due to characteristics of the earth material and topography including slopes exceeding 30 percent (30%) with a vertical relief of 10 or more feet, except areas composed of competent rock or constructed slopes designed and approved by a geotechnical engineer licensed in the state of Washington and

- experienced with the site or engineered slopes that show stable physical characteristics based on analysis by a qualified professional;
- iii. Any area with all the following:
 - A. A slope greater than 15 percent;
 - B. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
 - C. Springs or ground water seepage.
 - iv. Slopes that are parallel or sub-parallel to planes of weakness (such as bedding planes, joint systems and fault planes) in subsurface materials;
 - v. Slopes having gradients greater than 80 percent subject to rock fall during seismic shaking;
 - vi. Areas potentially unstable as a result of rapid stream incision and stream bank erosion or undercutting. These include slopes exceeding 10 feet in height adjacent to streams and lakes and with more than 35 percent gradient;
 - vii. Areas located in a canyon, on an alluvial fan or presently or potentially subject to inundation by debris flows or catastrophic flooding;
 - viii. Areas included in the Slope Stability Study of the Centralia-Chehalis Area, Lewis County, Washington by Allen J. Fiksdal, Department of Natural Resources, Division of Geology and Earth Resources, 1978: Areas mapped as “unstable,” “landslides” and “old landslides” (if slopes are in excess of 30 percent); and
 - ix. Areas located outside the study area on the Slope Stability Study of the Centralia-Chehalis Area, regardless of slope, that are mapped as “landslide debris” by the Washington State Department of Natural Resources, Division of Geology and Earth Resources.
2. Designation of Erosion and Landslide Hazard Areas. Lands of Lewis County meeting the classification criteria for erosion and landslide hazard areas are hereby, under Chapter 36.70A RCW, designated as erosion and landslide hazard areas, respectively.
 3. Applicability.
 - a. The provisions of this section shall apply to any development activity within areas classified as steep slopes, erosion hazard areas or landslide hazard areas. Development on lands classified as steep slopes, erosion hazards or landslide hazards is prohibited; provided that the city may allow development on said lands only in strict conformance with the provisions of section 14.010.120.D.
 - b. Development, design, implementation and mitigation measures concerning steep slopes, erosion hazard areas and landslide hazard areas shall be prepared by a qualified professional, a geotechnical engineer, licensed in the State of Washington, and said measures shall provide construction methodologies and quality assurances that the site can be developed without significant risk to public health, safety of welfare and in conformance with the development standards enumerated in sections 14.010.120.D.5 & 6.

4. Maps and Inventory. The approximate location and extent of hazardous areas are shown on the city's critical area maps. The city shall update the maps as new hazard areas are identified and as new information becomes available. The maps and reports cited should be used only as a general guide for landslide hazard investigation. Maintenance of maps does not imply that land outside mapped geologically hazardous areas will be without risk. Preparation and maintenance of such maps shall not create liability on the part of the City of Napavine, or any officer or employee thereof, for any damages that result from reliance on said maps or any decision lawfully made hereunder.
5. Development standards for erosion hazard areas. Uses and activities shall conform to the following standards:
 - a. Severe erosion hazard areas, including all slopes in excess of 30% shall be protected to provide multiple benefits including reduction of erosion, reduction of sedimentation in water bodies and preservation of related ecological values. Modification of topography and vegetation shall be strictly limited.
 - i. Subdivision within erosion hazard areas shall be designed to fully avoid disturbance and removal of soil or vegetation within the severe erosion hazard area.
 - ii. Land that is located partially or wholly within a severe erosion hazard area or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of the severe erosion hazard area with provision for drainage, erosion control and related features that will not adversely affect the hazard area.
 - b. Moderate erosion hazard areas, not including land classified as a steep slope, shall be protected through provisions adequate to limit erosion and sedimentation during construction and use.
 - c. An erosion control plan for a severe and moderate erosion hazard area shall incorporate the following and shall be coordinated with requirements under other city or county codes and state National Pollutant Elimination System permits and other agency requirements:
 - i. Alteration of topography and disturbance and removal of vegetation shall be minimized to the maximum extent feasible by location on the least sensitive portion of the site. In a land division or multi-unit development, structures shall be clustered.
 - ii. To conform to existing topography of the site reduce topographic modification, foundations shall conform to the natural contours of the slope and be stepped/tiered where possible.
 - iii. Roads, driveways, other vehicular access, trails, walkways and parking areas shall be located in the least sensitive area of the site and designed with low gradients and/or parallel to the natural contours of the site. Retaining walls shall be preferred over cut and fill slopes to minimize topographic modification.
 - d. Clearing and Grading.
 - i. The area of clearing and grading shall be minimized to the maximum extent feasible;

- ii. Impervious surfaces shall be minimized to the maximum extent feasible;
 - iii. Clearing and grading to create a flat area for lawn or recreation is prohibited in severe erosion hazard areas and steep slopes;
 - iv. Undergrowth shall be preserved to the maximum extent feasible.
- e. Erosion Control Management.
- i. The area of vegetation disturbance shall be minimized through a staging plan to develop sites in sequence with full stabilization of early phases, such as infrastructure installation, before disturbance for structures and other facilities in order to minimize erosion potential.
 - ii. Erosion and sedimentation control facilities such as silt fences shall be installed prior to any clearing and grading.
 - iii. Disturbed areas shall be protected from erosion through implementation of best management practices, including groundcovers, such as filter fabrics within 24 hours after disturbance. Vegetative cover shall be re-established on disturbed surfaces as soon as feasible, but in all cases prior to the rainy season.
 - iv. A drainage plan shall include:
 - A. Surface drainage, including downspouts, shall not be used in erosion hazard areas or steep slopes. Drainage originating above an erosion hazard area shall be collected and directed by a tight line drain, and provided with an energy dissipative device for discharge to a swale or other acceptable natural drainage areas.
 - B. Storm water retention and detention systems, including percolation systems utilizing buried pipe, are prohibited on steep slopes or severe hazard areas and strongly discouraged on moderate erosion hazard areas.
 - C. On-site sewage disposal system drain fields are prohibited on severe erosion hazard areas and strongly discouraged on moderate erosion hazard.
 - f. Utility lines and pipes shall be permitted in steep slopes or severe and moderate erosion hazard areas only where analysis by a qualified professional certifies that such system will not result in an increase in erosion. The qualified professional shall also certify that the systems are installed as designed and function as predicted.
6. Development standards for landslide hazard areas. Uses and activities permit shall conform to the following standards:
- a. Protection of Landslide Area and Buffer. The landslide hazard area and associated buffer shall be protected from disturbance, except in compliance with the standards of this section. Modification of topography and vegetation in landslide hazard areas shall be stringently limited to provide multiple benefits of long-term stability of sensitive slopes and related benefits including reduction of erosion potential, reduction of storm water runoff and preservation of related ecological values. Unless otherwise provided or as part of an approved alteration, removal of vegetation from a landslide hazard area or related buffer shall be prohibited. The landslide and buffer shall include woody vegetation adequate to stabilize the soil and

- prevent mass wasting. If the designated buffer area lacks adequate woody vegetation, the Administrator, after consultation with a qualified professional through the City's peer review process, shall have the authority to require vegetation restoration or other measures to improve slope stability.
- b. A buffer shall be established from all edges of landslide hazard areas. The size of the buffer shall be determined by the Administrator, after consultation with a qualified professional through the City's peer review process, to minimize or eliminate the risk of death, personal injury, property damage and effects on other elements of the environment resulting from earth movement caused in whole or in part by the development.
 - i. The buffer from the top of the slope shall be designed to protect persons and property from damage due to catastrophic slope failure and slope retreat over the lifetime of its use and provide an area of vegetation to promote the shallow stability, control erosions and multiple benefits to wildlife and other resources. The minimum dimensions of the buffer shall be equal to the greater of:
 - A. The distance from the top of the slope equal to the vertical distance from the toe of slope to the top of slope;
 - B. The distance from the top of the slope equal to the distance from the toe of the slope upslope at a slope of 2:1 (horizontal to vertical) to a point that intersects with the site's ground elevation; or
 - C. Fifty (50) feet from the top of the slope.
 - ii. The minimum buffer from the bottom of a slope shall provide for safety of persons and property from the run-out resulting from slope failure and shall be the greater of:
 - A. The height of the slope; or
 - B. Fifty (50) feet from the toe of the slope.
 - c. Landslide Hazard Area Design Standards
 - i. Subdivision within landslide hazard areas and associated buffers shall be designed to reduce soil disturbance and removal of vegetation. Land that is located partially within a landslide hazard area or its buffer may be divided provided that each resulting lot has sufficient buildable area outside of the hazardous area and buffer with provision for drainage, erosion control and related features that will not adversely affect the hazard area or its buffer. Land within a landslide hazard area and its buffer may not be subdivided to create buildable sites within the landslide hazard area. All plats and short plats will clearly show the boundary of the hazard area and buffer together with a restriction prohibiting development within the hazard area.
 - ii. Roads, driveways, other vehicular access, trails, walkways and parking areas may be permitted only if the standards for alteration exists, including through the provisions of RCW 8.24. If access through hazardous areas is granted, exceptions or deviations from technical standards for width or other dimensions and specific construction standards to minimize impacts may be specified. Access roads and trails

shall be engineered and built to standards that avoid the need for major repair or reconstruction beyond that which would be required in non-hazard areas and shall be:

- A. Located in the least sensitive area of the site.
 - B. Designed to minimize topographic modification with low gradients and/or parallel to the natural contours of the site.
 - C. Retaining walls shall be preferred over cut and fill slopes to minimize topographic modification.
- iii. Structures may be permitted only if the standards for alteration below are met and shall be designed to meet the following standards:
- A. Structures and impervious surfaces shall be located on the least sensitive portion of the site and designed to minimize disturbance and removal of vegetation.
 - B. Foundations should conform to the natural contours of the slope and foundations shall be stepped/tiered where possible to conform to existing topography of the site.
 - C. Retaining walls shall be preferred over cut and fill and shall be incorporated into structures wherever feasible.
- d. Clearing and grading may be permitted only if the standards for alteration below are met and shall meet the following standards:
- i. Clearing and grading shall minimize ground disturbance to the maximum extent feasible to accommodate allowed development and generally shall not extend more than 10 feet beyond the approved development;
 - ii. Undergrowth shall be preserved to the extent feasible; and
 - iii. No dead vegetation, fill or other foreign material shall be placed within a landslide hazard area, other than that approved for bulkhead or other methods of stream bank stabilization as provided in regulations for streams in this chapter and under the Shoreline Master Program.
- e. Drainage.
- i. Surface drainage, including downspouts, shall not be directed across the face of a hazard area. If drainage must be discharged from the top of a hazard area to its toe, it shall be collected above the top and directed to the toe by a tight line drain and provided with an energy dissipative device at the toe for discharge to a swale or other acceptable natural drainage areas.
 - ii. Storm water retention and detention systems, including percolation systems utilizing buried pipe, shall be located outside the landslide hazard area and its buffer.
- f. On-site sewage disposal system drain fields shall be located outside the landslide hazard area and its buffer. The septic system drain field must be in compliance with the regulations of the Lewis County Health Department or its successors.
- g. Utility lines and pipes shall be permitted in landslide hazard areas. The line or pipe shall be located above ground and properly anchored and/or designed so that it will continue to function in the event of an underlying slide.

- h. Lot size. For the purpose of determining lot sizes within hazard areas, the Administrator shall review available information, including any required geotechnical assessments and make a decision on a case-by-case basis based on the reports.

E. Wetlands.

1. Purpose. Wetlands constitute important natural resources which provide significant environmental functions including: the control of flood waters, maintenance of summer stream flows, filtration of pollutants, recharge of ground water and provisions of significant habitat areas for fish and wildlife. Uncontrolled urban-density development in and adjacent to wetlands can eliminate or significantly reduce the ability of wetlands to provide these important functions, thereby detrimentally affecting public health, safety and general welfare.
2. Applicability. The provisions of this chapter apply to any soil disturbance occurring or land use proposal affecting a Category 1,2,3, or 4 wetland or its buffer unless otherwise expressly exempted by this chapter.
 - a. Wetlands shall be identified in accordance with the requirements of RCW 36.70A.175. Unless otherwise provided for in this chapter, all areas meeting the criteria in the Washington State Wetlands Identification and Delineation Manual (Ecology Publication 96-94), as revised, are hereby designated critical areas and are subject to the provisions of this chapter.
 - b. The Administrator may accept the delineation of a specific wetland performed by of for other agencies where a formal delineation was performed in conjunction with a referenced permit with equivalent methodology.
 - c. The Administrator may accept a written determination of the U.S. Army Corps of Engineers, or the Washington State Department of Ecology (Ecology) that a specific parcel is not a wetland, as long as the determination is still applicable under state or federal law.
3. Exempted Wetlands. This chapter shall not apply to the following wetlands:
 - a. Isolated wetlands that are less than 1,000 square feet in size, where it has been shown by the applicant that they are not associated with a riparian corridor, they are not part of a wetland mosaic and do not contain habitat identified as essential for local populations of priority species identified by WDF&W and score less than 20 points under the Department of Ecology Rating System as amended.
 - b. Category III and IV wetlands between 1,000 and 4,000 square feet that are not associated with a riparian corridor, are not part of a wetland mosaic, score less than 20 points for habitat according to the 2004 Western Washington Rating System and do not contain habitat identified as essential for local populations of priority species identified by WDF&W.
4. Interpretation. Except where a contrary intent clearly appears, the provisions of this chapter shall be construed to the maximum feasible extent consistent with the Federal Clean Water Act, 33 USC Section 1251 et seq., and the rules

and guidelines promulgated pursuant thereto. Nothing in this chapter shall be construed to preclude application of the State Environmental Policy Act in approving applications not listed in NDC 4.010.090.

5. Wetland Delineation and Marking.
 - a. An application for wetland impacts shall not be deemed technically complete until completion (if required) of a wetland delineation.
 - b. The Administrator shall determine whether a wetland delineation is required based upon several factors including but not limited to a site visit, review of existing critical areas maps, review of National Wetland Inventory maps, the presence of hydric soils, historical evidence or consultation with a qualified expert.
 - c. Wetland Delineation.
 - i. Methodology. The location of a wetland and its boundary shall be determined through the performance of a field investigation, to be performed by a qualified scientific expert (see WAC 395-195-905) using the methodology contained in the wetlands delineation manual. The applicant shall be responsible for the cost of the professional services. If a wetland is located off-site and is inaccessible, the best available science shall be used to determine the wetland boundary and category.
 - ii. Information Requirements. Wetland boundaries shall be staked and flagged in the field and a delineation report shall be submitted to the city. The report shall include the following information:
 - A. U.S.G.S. Quadrangle map with site clearly defined;
 - B. Topographic map of area;
 - C. National wetland inventory map showing site;
 - D. Soil Conservation Service soils map of the site;
 - E. Site map, at a scale no smaller than one inch equals 400 feet, if practical, showing the following information: (a) wetland boundaries; (b) sample sites and sample transects; (c) boundaries of forested areas; and (d) boundaries of wetland classes if multiple classes exist;
 - F. Discussion of methods and results with special emphasis on technique used from the wetlands delineation manual;
 - G. Acreage of each wetland on the site based on the survey if the acreage will impact the buffer size determination of the project design;
 - H. All completed field data sheets (U.S. Army Corps of Engineers' format for three parameter application) numbered to correspond to each sample site.
 - iii. Responsibility. The wetland delineation is the responsibility of the applicant. The city shall verify the accuracy of the boundary delineation within 20 working days of receiving the delineation report. This review period may be extended when excessively dry conditions prohibit the confirmation of the wetland delineation. If the delineation is found to not accurately reflect the boundary of the wetland, the city will issue a report, within 30 working days of receiving the applicant's delineation report, citing evidence (for example soil samples) that demonstrates where the

- delineation is in error. The applicant then may either revise the delineation and submit another report or administratively appeal.
- d. Buffers. All buffers shall be measured perpendicularly outward from the delineated wetland boundary.
 - e. Marking Buffer during Construction. The location of the outer extent of the wetland buffer shall be marked in the field and such markings shall be maintained throughout the duration of the permit.
 - f. Permanent Marking of Buffer Area. A permanent physical demarcation along the upland boundary of the wetland buffer area shall be installed and thereafter maintained. Such demarcation may consist of logs, a tree or hedge row, fencing or other prominent physical marking approved by the hearing examiner. In addition, small signs shall be posted at an interval of one per lot or every 100 feet, whichever is less, and perpetually maintained at locations along the outer perimeter of the wetland buffer worded substantially as follows: "WETLAND AND BUFFER-PLEASE RETAIN IN A NAUTRAL STATE."
 - g. A conservation covenant shall be recorded in a form approved by the city attorney as adequate to incorporate the other restrictions of this section and to give notice of the requirement to obtain a wetland permit prior to engaging in regulated activities within a wetland or its buffer.
 - h. In the cases of plats, short plats and recorded site plan, include on the face of such instrument the boundary of the wetland and its buffer and a reference to the separately recorded conservation covenant provided for in subsection (F)(5)(g) of this section.
6. Wetland Rating. The Washington State Department of Ecology wetland rating system, Washington State Wetland Rating System for Western Washington (Revised, Publication #04-06-025, August, 2004), as updated, shall be used in part to determine base buffer widths and to determine mitigation and enhancement requirements.
- a. The determination of the specific category of wetland and buffer type for each wetland shall be the responsibility of the applicant and subject to city approval.
 - b. Wetlands that are enhanced thereafter shall provide buffers that satisfy the function requirements of the buffer for the enhanced and higher category wetland.
 - c. Wetland rating system.
 - i. Category I. Category I wetlands represent a unique or rare wetland type; are more sensitive to disturbance than most wetlands; are relatively undisturbed and contain ecological attributes that are impossible to replace within a human lifetime; or provide a high level of water quality, hydrologic and habitat functions. These wetlands meet one or more of the following criteria:
 - A. Wetlands that are identified by scientists of the Washington Department of Natural Resources Washington Heritage Program as high quality wetlands, relatively undisturbed wetlands or wetlands that support State listed threatened or endangered plants;

- B. Bogs due to their sensitivity to disturbance and they are irreplaceable through compensatory mitigation;
 - C. Mature (softwoods 80 years old or older & hardwoods 50 years old or older) and old growth forested wetlands larger than 1 acre;
 - D. Wetlands that perform many functions well, as indicated by scoring 70 points (out of 100) in the rating system.
- ii. Category II. Category II wetlands are difficult, but not impossible to replace; and perform most functions relatively well or perform one group of functions (water quality, hydrologic or habitat) very well and the other two groups moderately well. These wetlands have moderately high level of functions, as indicated by scoring 51-69 points in the Ecology rating system.
 - iii. Category III. Category III wetlands perform a moderate level of functions; typically have been disturbed in some manner; and are often less diverse and more isolated from other natural resources in the landscape than Category II wetlands. These wetlands score between 30-50 points in the Ecology rating system.
 - iv. Category IV. Category IV wetlands have the lowest levels of functions and are often heavily disturbed. These wetlands score less than 30 points in the Ecology rating system.
7. Base Buffers.
- a. Buffer width, measured in feet, shall be based upon “Alternative 3 in Appendix 8C of Freshwater Wetlands in Washington State, Vol. 2.” Intensity of use shall be based upon Table “8C-3, Types of proposed land use that can result in high, moderate and low levels of impacts to adjacent wetlands” described in “Appendix of Freshwater Wetlands in Washington State, Vol. 2.”

Table 14.010.120.E.7.a.1 Buffers Required to Protect Hydrologic Functions

Wetland Rating	Low Intensity	Moderate Intensity	High Intensity
Category I	50 ft.	75ft.	100 ft.
Category II	50 ft.	75ft.	100 ft.
Category III	50 ft.	60 ft.	80 ft.
Category IV	25 ft.	40 ft.	50 ft.

Table 14.120.090.E.7.a.2 Buffers Required to Protect Habitat Functions in Category III Wetlands

Habitat Rating Form Score	Low Intensity	Moderate Intensity	High Intensity
≤ 19 points	See Table (a)-1	See Table (a)-1	See Table (a)-1
≥ 20 points	75 ft.	110 ft.	150 ft.

Table 14.120.090.E.7.a.3 Buffers Required to Protect Habitat Functions in Category I & II Wetlands

Habitat Rating	Low Intensity	Moderate Intensity	High Intensity
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Form Score			
≤ 19 points	See Table (a)-1	See Table (a)-1	See Table (a)-1
20-23 points	60 ft.	90 ft.	120 ft.
24-27 points	90 ft.	130 ft.	180 ft.
28-30 points	130 ft.	195 ft.	260 ft.
≥ 31 points	150 ft.	225 ft.	300 ft.

- b. New urban residential lots shall not be platted within wetland buffers.
 - c. Storm water facilities and public utilities, if approved the city, may be located within the outer 25% of Category III or IV wetland provided no other location is feasible and that it will not degrade the functions of the wetland or its buffer. Storm water facilities may not be allowed in wetland buffers that have been reduced through the buffer reduction or buffer averaging provisions of this chapter.
8. Wetland Buffer Reduction. (See sections 14.010.090.E.5 for policy guidance.)
- a. Functionally Isolated Buffer Areas. Areas which are functionally separated from a wetland and do not protect the wetland from adverse impacts due to pre-existing roads, structures or vertical separation, shall be excluded from buffers otherwise required by this Chapter.
 - b. The full buffer width of higher quality wetlands (habitat scores of 20 or greater) shall not be extended over lesser quality wetlands that have reduced habitat function as designated in Tables 14.010.0120.E.7.a.1, 14.010.0120.E.7.a.2, 14.010.120.E.7.a.3, and if all of the following criteria are met:
 - i. The area of reduced habitat function is at least 1 acre in size;
 - ii. The area supports less than 5 native plant species and contains no special habitat features listed in H1.5 of the rating form;
 - iii. The area does not meet any WDFW Priority Habitat of Species criteria;
 - iv. The required buffer width to protect habitat function is provided for all portions of the wetland that do not have reduced habitat function.
 - c. The city may allow the averaging of a buffer of a Category III of IV wetland:
 - i. The buffer proposed for reduction has a habitat rating of 19 points or less;
 - ii. No area averaged is less than 50% the width of the required base buffer;
 - iii. The proposed reduction will not create a net loss of buffer function; and
 - iv. The total are contained in the buffer after averaging shall be at least functionally equivalent and equal in size to the area contained within the buffer prior to averaging. Averaging cannot be used in combination with other buffer reduction methods on the same buffer segment.
 - d. A buffer for a Category III or IV wetland may be reduced by no more than 50% of the area of the buffer if:
 - i. The buffer proposed for reduction has a habitat rating of 19 points or less;
 - ii. The proposed reduction will not create a net loss of buffer function;

- iii. Buffer width shall not be less than 50% of the base buffer width at any point;
- iv. Mitigation and enhancement measures, consistent with the provisions of this chapter, are approved by the city and implemented by the developer.
- v. The city may elect to submit the mitigation and enhancement plans to one or more qualified expert for peer review.
- e. General Site Design Measures. High intensity buffers may be reduced to moderate intensity buffers if all of the following mitigation measures are applied to the greatest extent practicable, and there is a proven low wildlife function
 - i. Buffer Enhancement. The intent and effect of an approved buffer enhancement program shall be to measurably improve low functioning buffers by increasing the identified functions of the buffer. This may include the removal and management of noxious weeds and/or invasive vegetation or specific measures to improve hydrologic or habitat function.
 - ii. Shielding of High Intensity Uses.
 - A. Lights. Direct all lights away from wetlands;
 - B. Noise. Locate activity that generates noise away from wetlands;
 - C. Pets and Human Disturbance. Use privacy fencing; plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate for the eco-region; place wetland and its buffer in a separate tract.
 - iii. Surface Water Management.
 - A. Existing runoff. Retrofit storm water detention and treatment for roads and existing development and disperse direct discharge of channelized flows from lawns and landscaping;
 - B. Change in water regime. Infiltrate and/or disperse storm water runoff from impervious surfaces and drainage from lawns and landscaping into the buffer at multiple locations, except where the infiltration or dispersal would either be in opposition to the recommendations contained in the geo-technical report for the project or where the infiltration of dispersal would occur in a geologically hazardous area.
- f. Low Impact Development. In the alternative, if the development of the site has a low impact upon the critical area, the applicant may reduce the buffer width. However, the following reductions cannot be used in combination:
 - i. Limiting effective impervious surface. Use of low impact development techniques and/or limiting the extent of impervious site area. Areas set aside as non-impervious surface must be protected by some type of permanent legal protection such as a covenant or easement.
 - ii. Enhanced Storm water Management. Reduction of high land use intensity buffer to moderate land use intensity buffer for implementation of storm water treatment measures that exceed adopted city standards. (For example, storm water facilities designed to the Western Washington Manual rather than the Puget Sound Manual.) This could include measures such as pre-treatment or tertiary treatment of run-off and

limiting discharge from the site to pre-development run-off flow and volume.

- iii. Habitat Corridors. Establishment of a minimum 100 feet wide functioning or enhanced vegetated corridor between the wetland and any other Priority Habitat areas as defined by the Washington State Department of Fish and Wildlife:
 - A. Applies only to wetlands with habitat function scores higher than 20 on the rating system form;
 - B. The habitat corridor must be protected for the entire distance between the wetland and the Priority Habitat area by some type of permanent legal protection such as a covenant or easement.

9. Wetland Development Standards-General.

- a. Any development proposal that impacts a wetland or wetland buffer shall not be allowed without an approved mitigation or enhancement plan consistent with NDC 4.010.110.C and the mitigation sequencing preference. (See NDC 4.010.030 Definitions.)
- b. The city shall not approve a development proposal that impacts wetlands of wetland buffers without a finding that:
 - i. The proposed activity shall not cause significant degradation of ground water or surface water quality or fish and wildlife habitat;
 - ii. The proposed activity shall comply with all state, local and federal laws, including those related to sediment control, pollution control, floodplain restrictions, storm water management and on-site waste water disposal; and
 - iii. Wetland and wetland buffer impacts shall be avoided or substantially minimized consistent with the mitigation sequencing criteria.
- c. Impervious surfaces shall be set back a minimum of 15 feet from the outer edge of a buffer.

10. Wetland Activities. Activities that trigger a wetland permit shall meet the following standards:

- a. Wetland impacts to Category I wetlands that are bogs or Natural Heritage sites shall be avoided.

11. Wetland Enhancement-Preliminary Plan. The preliminary enhancement/mitigation plan consists of two parts, baseline information for the site and a conceptual plan.

- a. Baseline information shall include:
 - i. Wetland delineation report;
 - ii. Description and maps of vegetative conditions at the site;
 - iii. Description and maps of hydrological conditions at the site;
 - iv. Description of soil conditions at the site based on a preliminary on-site analysis;
 - v. A topographic map of the site;
 - vi. Assessment of the functional uses of the existing wetland and buffer.
- b. The contents of the conceptual plan shall include:
 - i. Goals and objectives of the proposed project;
 - ii. Description of wetland type to be created;

- iii. Map showing proposed wetland and buffer. This map should include the base buffer and the proposed buffer;
 - iv. Site plan;
 - v. Discussion and map of plant material to be planted and planting densities;
 - vi. Preliminary drainage plan identifying location of proposed drainage facilities including detention structures and water quality features (e.g. swales);
 - vii. Discussion of water sources for the wetland;
 - viii. Project schedule;
 - ix. Discussion of how the completed project will be managed and monitored;
 - x. Discussion of contingency plans in case the project does not meet the goals initially set for the project.
12. Wetland Enhancement-Final Plan. The contents of the final enhancement/mitigation plan shall include:
- a. Preliminary enhancement/mitigation plan and all conditions imposed on that plan.
 - b. Performance Standards. Specific criteria shall be provided for evaluating whether or not the goals and objectives of the enhancement/mitigation project are being met. Such criteria may include water quality standards, survival rates of planted vegetation, species abundance and diversity targets, habitat diversity indices or other ecological, geological or hydrological criteria.
 - c. Detailed Construction Plans. Written specifications for the enhancement/mitigation project shall be provided. The specifications shall include: the proposed construction sequence, grading and excavation details, water and nutrient requirements for planting, specification of substrate stockpiling techniques and planting instructions as appropriate. These written specifications shall be accompanied by detailed site diagrams, sealed cross-sectional drawings, topographic maps showing slope percentage and final grade elevations and any other drawings appropriate to show construction techniques or anticipated final outcome.
 - d. Monitoring Program. Description of a detailed program for monitoring the success of the enhancement/mitigation project. In addition to the standards described in NDC 4.010.120, a monitoring program shall include, but is not limited to:
 - i. Establishing vegetation plots to track changes in plant species composition and density over time;
 - ii. Using photo stations to evaluate vegetation community response;
 - iii. Sampling surface and subsurface waters to determine pollutant loading and changes from the natural variability of background conditions (pH, nutrients and heavy metals);
 - iv. Measuring base flow rates and storm water runoff to model and evaluate water quality predictions, if appropriate;
 - v. Measuring sedimentation rates, if applicable; and

- vi. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity. A protocol shall be included outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the project. A monitoring report shall be submitted annually at a minimum, documenting milestones, successes, problems and contingency actions of the compensation project. All compensatory mitigation projects shall be monitored for a period necessary to establish that performance standards have been met, but generally not for a period less than five (5) years. The administrator shall have the authority to extend the monitoring period and require additional monitoring reports for up to 10 years when any of the following conditions apply:
 - a. The project does not meet the performance standards identified in the mitigation plan;
 - b. The project does not provide adequate replacement for the functions and values of the impacted sensitive area;
 - c. The project involves establishment of forested plant communities, which require longer time for establishment;
 - d. Reports shall be submitted annually for the first three (3) years following construction and at the completion of years five, seven, and 10 if applicable to document milestones, successes, problems, and contingency actions of the compensatory mitigation
 - e. Associated Plans and Other Permits.
 - i. Final landscaping plan;
 - ii. Final drainage plan; and
 - iii. Final erosion and sediment control plan.
 - f. Evidence of Financial and Scientific Proficiency. A description of how the enhancement/mitigation project will be managed during construction and the scientific capability of the designer to successfully implement the proposed project. In addition, a demonstration of the financial capability of the applicant to successfully complete the project and ensure it functions properly over a five-year period. Evidence that required bonding can be obtained.
 - g. Contingency Plan. Identification of potential courses of action and any corrective measures to be taken when monitoring or evaluation indicates project performance standards are not being met.
- 13. Wetland Permit-Application.
 - a. Applications for wetland permits shall be made to the city on forms furnished by the city. The city shall process a wetland permit application as a request for land use approval.
 - b. Wetlands permit applications shall include:
 - i. Wetland delineations and required buffer width;
 - ii. A site plan for the proposed activity overlaid on an aerial photograph at a scale no smaller than one inch equals 400 feet showing the location, width, depth and length of all existing and proposed structures, roads, storm water management facilities, sewage treatment and installations within the wetland and its buffer;

- iii. The exact sites and specifications for all regulated activities including the amounts and methods;
 - iv. A proposed preliminary enhancement/mitigation plan meeting the requirements of this chapter.
14. Wetland permit-Approval.
- a. The city shall issue final approval of the wetland permit authorizing commencement of the activity permitted thereby upon:
 - i. Submittal and approval of a final enhancement/mitigation plan;
 - ii. Installation and approval of the required field markings;
 - iii. The recording of a conservation covenant.
 - b. Conditions. An approval of a wetland permit shall incorporate the following condition:
 - i. Posting of a cash performance bond or other security acceptable to the city in an amount and with surety and conditions sufficient to fulfill the requirements of the required final plan, mitigation plan and enhancement plan and to secure compliance with other conditions and limitations set forth in the permit.
 - ii. The city shall release the bond upon determining that:
 - A. All activities, including any required compensatory mitigation, have been completed in accordance with the terms and conditions of the permit and the requirements of this chapter; and
 - B. Upon forfeiture of a performance or maintenance bond, the proceeds thereof shall be utilized either to correct deficiencies which resulted in forfeiture or if such correction is deemed by the county to be impractical or ineffective to enhance other wetlands in the same watershed.
 - c. Duration. Wetland permit final approval shall be valid for a period of two years from the date of issuance unless:
 - i. A longer period, not to exceed five years, is specified in the permit; or
 - ii. The city grants an extension upon the written request of the original permit holder or successor in title demonstrating to the satisfaction of the city:
 - A. That the original intent of the permit would not be altered or enlarged by the extension; and
 - B. That relevant circumstances and standards have not changed substantially since the permit application; and
 - C. That the applicant has complied with the terms of the permit.
 - d. Revocation. In addition to other remedies provided for elsewhere, the city may suspend or revoke a permit if the applicant or permittee has not complied with any of the conditions or limitations set forth in the permit, has exceeded the scope of work set forth in the permit, or has failed to undertake the project in the manner set forth in the permit.

14.010.130 Residential density transfer

The city may permit density transfer from critical areas (sending lands) to designated non-critical areas (receiving areas).

- (1) Residential Density Transfer. A property owner may transfer residential density to a receiving area.
 - (a) A receiving area shall be on the same parcel or same property, within the same zoning classification, owned by the property owner sending the density.
 - (b) Density may be transferred from a sending area only one time.
 - (c) The value of the transfer shall be calculated as follows:
 - i. LDR districts: The gross areas of a critical area completely avoided times the minimum number of units allowed per gross acre in the affected zoning district times 60%. For example, in an R1-10 zone, if 2 acres of critical areas are completely avoided and the minimum density allowed is 4 units per acre, the allowable density transfer would be 4.8 units. ($2\text{ac.} \times 4\text{du/ac} \times 60\% = 4.8$).
 - ii. MDR District: The gross acreage of a critical area completely avoided times the minimum number of units allowed per gross acre in the affected zoning district times 60%. For example, if 2 acres of critical areas are completely avoided and the minimum density allowed is 8 units per acre, the allowable density transfer would be 9.6 units. ($2\text{ac.} \times 8\text{du/ac} \times 60\% = 9.6$).
- (2) Transfer Criteria. The Administrator shall approve requests to transfer density subject to the following criteria:
 - (a) Adverse impacts to natural resources on the receiving areas shall be mitigated consistent with the mitigation section of this chapter.
 - (b) The building height standards of the receiving area shall be met.
 - (c) No lot (gross area) shall be less than 20% of the minimum lot size within the receiving district.
 - (d) No lot created as a result of density transfer that is smaller than the average minimum lot required in the receiving district may be located on the perimeter of the project site.
 - (e) The transfer of density to a receiving area shall not result in an increase in density throughout the project greater than the maximum net density allowed in the base zone or in the construction of a housing type not otherwise allowed in the receiving area.
 - (f) Critical areas and buffers within the sending area shall be enhanced at a ratio of four acres of enhanced function for every one acre (4:1) used in the density transfer calculations.
 - (g) Sending areas shall be:
 - i. Dedicated to the city for public use; or
 - ii. Protected as an unbuildable area by means of deed restriction, conservation easement or other mechanism approved by the city council.

- (3) Recordation Required. Density may be transferred from a protected critical areas area only once. The Administrator (upon consultation with the city attorney) shall be responsible for approving the mechanism used for protecting each critical area. The Administrator shall maintain a list of sites from which density has been transferred and a corresponding list of sites that have received density from protected critical areas. The applicant shall record the density transfer mechanism with Lewis County and shall furnish the Administrator with a copy of the recorded instrument.

14.010.140 Selective timber harvesting on critical lands

- A. Applicability. Consistent with RCW 76.09.240, the city extends its planning and zoning jurisdiction over forest practices in critical areas to the extent that:
- (a) Commercial forestry activity occurs on lands identified as critical areas on the city's adopted critical areas maps;
 - (b) An application submitted under RCW 76.09.060 indicates that the lands will be converted to a use other than commercial timber productions;
 - (c) The subject lands were platted after January 1, 1960; and
 - (d) Consistent with the adopted Napavine comprehensive plan, the city of Napavine presumes that any application for commercial timber harvest within the Napavine urban growth boundary that is subject to Chapter 76.09 RCW et seq. is for the purpose of converting forested lands into urban lands.
- B. Standards. Selective commercial timber harvesting may be permitted on critical areas subject to the following standards:
- 1. Written Plan Required. Trees to be removed shall be identified in a plan drawn to scale and shall be clearly marked prior to their removal. An applicant shall present a written plan explaining in detail the location of trees to be removed and the method of removal, Administrator for review and approval.
 - 2. Prior to approval of a harvesting permit, the applicant shall prepare and sign an agreement with the city stating that no development application shall be filed on the subject property, other than a single-family residence, for six years following completion of timber harvesting operations. The agreement shall run with the land. The City Council shall review the agreement and upon approval, the applicant shall record the agreement with Lewis County and provide the City with a copy of the recorded instrument.
 - 3. Selective tree removal on critical lands shall not result in loss of more than 50 percent of existing tree canopy covering critical areas.
 - 4. The applicant shall demonstrate that the methods used for tree harvesting and removal are the least disruptive practicable.
 - 5. Operations shall be limited to the dry season, that is, from May 1st through October 30th.
 - 6. Applicants for selective timber harvesting shall prepare an erosion control plan for review and approval by Administrator and if the plan is approved

shall comply with the plan during harvesting activity and shall maintain required erosion control mechanisms for a period of 180 days after completion of the timber removal project.

- C. Conditions. The Administrator may recommend conditions of approval necessary to minimize adverse impacts on natural resource values, including water quality and wildlife habitat to the extent that such conditions are consistent with the Napavine comprehensive plan.

14.010.150 Application fees

At the time of application for land use review or critical areas review, the applicant shall pay a critical areas review fee, adopted and amended by the city council, from time to time by resolution.

14.010.160 Bonds to Insure Mitigation, Maintenance and Monitoring

- A. When mitigation required pursuant to a development proposal is not completed prior to the City final permit approval, such as final plat approval or final building inspection, the City shall require the applicant to post a performance bond or other security in a form and amount deemed acceptable by the City. If the development proposal is subject to mitigation, the applicant shall post a performance bond and a mitigation bond or other security on a form and amount deemed acceptable by the City to ensure mitigation is fully functional.
- B. The bond shall be in the amount of one hundred and twenty-five percent (125%) of the estimated cost of the uncompleted actions or the estimated cost of restoring the functions and values of the critical areas that are at risk, whichever is greater and the cost of maintenance and monitoring for a ten (10) year period.
- C. The bond shall be in the form of an assignment of savings account, an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the city attorney or other method acceptable to the Planning Administrator.
- D. Bonds or other security authorized by this Section shall remain in effect until the City determines, in writing, that the standards bonded for have been met. Mitigation bonds or other security shall be held by the City for a minimum of ten (10) years to ensure that the required mitigation has been fully implemented and demonstrated to function and may be held for longer periods when necessary.
- E. Depletion, failure or collection of bond funds shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, monitoring of restoration.
- F. Public development proposals shall be relieved from having to comply with the bonding requirements of this Section if public funds have previously been committed for mitigation, maintenance, monitoring or restoration.
- G. Any failure to satisfy critical area requirements established by law or condition including, but not limited to, the failure to provide a monitoring report within thirty (30) days after it is due or comply with other provisions of an approved mitigation plan shall constitute a default and the City may demand payment of

any financial guarantees of require other action authorized by the City code or any other law.

- H. Any funds recovered pursuant to this Section shall be used to complete the required mitigation, maintenance or monitoring.

14.010.170 Critical Area Inspections

Reasonable access to the site shall be provided to the City, state and federal agency review staff for the purpose of inspections during any proposal review, restoration, emergency action or monitoring period.

SECTION 3. Severability

In the event a Court of competent jurisdiction should declare the invalidity of any clause, sentence, paragraph, subdivision, section or portion of this Ordinance, or the invalidity of the application thereof to any person or circumstances such ruling shall not affect the validity of the remainder of this Ordinance, nor the validity of its application to other persons or circumstances and to that end the provisions of the Ordinance are declared to be severable.

SECTION 4. Effective Date

This Ordinance shall be in full force and effect five (5) days after its passage, approval and posting as provided by law upon publication in the City’s official newspaper.

ADOPTED by the City Council of the City of Napavine, Washington and **APPROVED** by its Mayor at a regularly scheduled open public meeting thereof this 22nd day of December, 2009.

Nicholas Bozarth, Mayor

Attested:

City Clerk/Treasurer

Approved as to form and content:

Dana L. Williams, City Attorney

APPENDIX A

1. Low intensity uses. Land alteration associated with low intensity uses is slight and human activities are infrequent or at a low level of intensity. Wildlife habitat functions in particular are accommodated to a large extent on land subject to low intensity use. Low intensity uses, facilities, and activities include, but are not limited to:
 - a. Low-intensity open space uses and activities, including but not limited to hiking bird watching, hunting, and similar activities;
 - b. Unpaved trails, provided that the width does not exceed four (4) feet and is on slopes no greater than 35 percent;
 - c. Utility corridors without maintenance roads and with little to no periodic vegetation management; and
 - d. Harvesting wild products but not including tilling of soil.
2. Moderate intensity uses. The proximity impacts of moderate intensity uses are either of moderate frequency or of a moderate level. Wildlife habitat uses in particular are accommodated to a limited extent on land subject to moderate intensity use and activities. Uses, facilities, and activities include, but are not limited to:
 - a. Residential use at 1 unit/acre or less;
 - b. Pars characterized by open space without extensive areas of turf and largely limited to interpretive facilities and trails;
 - c. Paved trails, provided that the width does not exceed ten (10) feet and on side slopes no greater than 35 percent; Rural roads that are unpaved and used primarily for access to forests or farmland on less than a daily basis, except during harvest periods; and
 - d. Utility corridors or right-of-way shared by several utilities and including access/maintenance road.
3. High intensity uses. The proximity impacts of such uses are great and require buffering for attenuation. Few habitat functions are provided on lands devoted to high intensity uses. Uses, facilities, and activities include, but are not limited to:
 - a. Residential use at greater than 1 unit/acre;
 - b. Commercial, office and retail use;
 - c. Industrial use;
 - d. Institutional use; and
 - e. Park and recreation uses and facilities involving a high level of alteration of the natural environment, parking and recreations areas, and areas often associated with use of fertilizers, pesticides, and herbicides and include, but are not limited to, golf courses, ball fields, recreation centers, and similar uses.

APPENDIX B

WETLAND CATEGORY	RE-ESTABLISHMENT	REHABILITATION	CREATION	ENHANCEMENT
Category IV	1.5:1	2:1 to 3:1	1.5:1 to 2:1	3:1 to 6:1
Category III	2:1	3:1 to 4:1	1:5:1 to 2:1	4:1 to 8:1
Category II	3:1	4:1 to 6:1	3:1	6:1 to 12:1
Category I	4:1 to 6:1	8:1 to 12:1	6:1	12:1 to 24:1

***Ratio is the replacement area: impact area.**

(3) Buffer Mitigation. Compensation for wetland buffer impacts, other than buffer averaging, shall occur at the following minimum ratios:

- Category IV – ratio of 1:1**
- Category III – ratio of 1:1**
- Category II – ratio of 1.5:1**
- Category I – 2.5:1**