

**Appendix B: Critical Areas Ordinance  
Regulations for Critical Areas within the  
Shoreline Jurisdiction**

**Chapter SMP17.05**  
**CRITICAL AREAS WITHIN THE SHORELINE JURISDICTION– GENERAL**  
**PROVISIONS**

SMP17.05.010	Purpose and goals
SMP17.05.015	Critical areas
SMP17.05.020	Intent
SMP17.05.030	Interpretation
SMP17.05.040	Regulated uses – Activities
SMP17.05.045	Best available science
SMP17.05.075	Application
SMP17.05.080	Critical areas review
SMP17.05.085	Critical areas report
SMP17.05.087	Mitigation sequencing
SMP17.05.095	Critical areas protective measures
SMP17.05.100	Compliance
SMP17.05.120	Bonding
SMP17.05.150	Nonconforming activities
SMP17.05.180	Assessment relief
SMP17.05.190	Maps and inventory

**SMP17.05.010 Purpose and goals**

- A. This Chapter and Chapters SMP17.07, SMP17.09, SMP17.11, SMP17.13, SMP17.15 and SMP17.17 FMC establish regulations for development activity in critical areas.
  
- B. It is the purpose of this chapter to protect areas within the city identified as critical areas from the adverse impacts of development and incompatible land use through the use of clear and reasonable land use regulations and criteria based on best available science in accordance with WAC 365-195-900 through 365-195-925, and in accordance with state and federal agencies and other qualified professionals. In order to accomplish this purpose, the city seeks to implement the following general goals:
  - 1. Maintain and enhance critical areas within the city.
  - 2. Encourage the conservation of lands with significance as critical areas as defined by the Washington State Department of Community, Trade and Economic Development in Chapter 365-190 WAC.
  - 3. Discourage incompatible land uses within critical areas and on adjacent parcels.
  - 4. Maintain open space within the city for recreational and educational uses, as fish and wildlife habitat, and for aesthetic purposes.
  - 5. Enhance and protect the air and water quality, ecologic systems, and high quality of life in the city and its urban growth area.

6. Alert members of the public, including appraisers, assessors, owners, potential buyers, or lessees, to the development limitations of critical areas and adjacent parcels or buffers.

#### **SMP 17.05.015 Critical areas**

Critical areas regulated by this title include:

- A. Wetlands as designated in Chapter SMP17.17 FMC;
- B. Critical aquifer recharge areas as designated in Chapter SMP17.07 FMC;
- C. Fish and wildlife habitat conservation areas as designated in Chapter SMP17.15 FMC;
- D. Frequently flooded areas as designated in Chapter SMP17.09 FMC;
- E. Geologically hazardous areas as designated in Chapter SMP17.11 FMC; and
- F. Seismic hazard areas as designated in Chapter SMP17.13 FMC.

#### **SMP17.05.020 Intent**

The intent of this chapter and title is to protect and conserve critical areas in the city by establishing minimum standards for development on sites which contain or adjoin such critical areas. The city seeks to promote the public health, safety, and general welfare by:

- A. Protecting critical areas from the impacts of development;
- B. Mitigating unavoidable impacts to critical areas by regulating alterations within and adjacent to those areas;
- C. Protecting the public against losses from: unnecessary maintenance and replacement of public facilities, publicly funded mitigation of avoidable impacts, and degradation of the natural environment;
- D. Preventing cumulative adverse impacts on water quality, water availability, wetlands, streams and other aquatic resources;
- E. Providing city officials with adequate information to adequately protect critical areas when approving, conditioning, or denying private development proposals;
- F. Implementing the goals of the Growth Management Act (GMA), the State Environmental Policy Act, and other land use policies and plans adopted by the city; and
- G. Protecting public and private resources and facilities from injury and property damage resulting from flooding, erosion, seismic events, soil subsidence, and steep slope failure.

#### **SMP17.05.030 Interpretation**

In the interpretation and application of this chapter, all provisions shall be:

- A. Considered the minimum necessary;
- B. Liberally construed to serve the purposes and goals of this chapter; and
- C. Deemed neither to limit nor repeal any other powers under federal, state, county, or city statutes, regulations, or ordinances that are intended to accomplish purposes and achieve goals that are the same or similar to the purposes and goals of this chapter and title.

**SMP17.05.040 Regulated uses – Activities**

- A. The city 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 unless the requirements of this chapter and title are met. Such approval or permission includes, but is not limited to, the following: grading permits, building permits, binding site plans, conditional use permits, right-of-way construction permits, site development permits, master plan development such as planned residential developments, subdivisions, short subdivision, special use permit, utility permit, variance, rezone, or any subsequently adopted permit or required approval not expressly exempted by this title. These critical area regulations shall apply as an overlay and in addition to zoning and other regulations adopted by the city.
- B. The permits required by this title shall be in addition to permits or other types of approvals required by any other provisions of the FMC, or any applicable federal, state or county requirements. By resolution, the city council shall establish fees for critical area identification and permit review processing.
- C. The city shall regulate all uses within 300 feet of, or that are likely to affect, one or more critical areas, consistent with the best available science and the provisions of this title.
- D. These critical area regulations shall apply concurrently with review conducted under the State Environmental Policy Act (SEPA). Any conditions required pursuant to this title shall be included in the SEPA review and threshold determination.
- E. As provided herein, the director is given the authority to interpret and apply, and the responsibility to enforce, this title to accomplish its purpose, goals, and intent.

**SMP17.05.045 Best available science**

- A. Protection for Functions and Values and Anadromous Fish. Critical area reports and decisions to alter critical areas shall rely on the best available science to protect the function 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, such as salmon and bull trout.

- B. Best Available Science to Be Used Must Be Consistent with Criteria. The 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 365-195-925. Pierce County road and bridge design and construction standards are hereby referenced as a source of best available science for city of Fife critical areas standards. Sources for best available science are also included in the latest edition of “Citations of Recommended Sources of Best Available Science,” published by the Washington State Office of Community Development.
- C. Characteristics of a Valid Scientific Process. In the context of critical areas protection, a valid scientific process is one that produces reliable information useful in understanding the consequences of the city’s regulatory decisions, and in developing critical areas policies and development regulations that will be effective in protecting the functions and values of critical areas. To determine whether information received during the permit review process is reliable scientific information, the Director shall determine whether the source of the information displays the characteristics of a valid scientific process. Such characteristics are as follows:
1. Peer Review. The information has been critically reviewed by other persons who are qualified scientific experts in that scientific discipline. The proponents of the information have addressed the criticism of the peer reviewers. Publication in a refereed scientific journal usually indicates that the information has been appropriately peer-reviewed;
  2. Methods. The methods used to obtain the information are clearly stated and reproducible. The methods are standardized in the pertinent scientific discipline or, if not, the methods have been appropriately peer-reviewed to assure their reliability and validity;
  3. Logical Conclusions and Reasonable Inferences. The conclusions presented are based on reasonable assumptions supported by other studies and consistent with the general theory underlying the assumptions. The conclusions are logically and reasonably derived from the assumptions and supported by the data presented. Any gaps in information and inconsistencies with other pertinent scientific information are adequately explained;
  4. Quantitative Analysis. The data have been analyzed using appropriate statistical or quantitative methods;
  5. Context. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are appropriately framed with respect to the prevailing body of pertinent scientific knowledge; and
  6. References. The information is placed in proper context. The assumptions, analytical techniques, data, and conclusions are well referenced with citations to relevant, credible literature and other pertinent existing information.

- D. Nonscientific Information. Nonscientific information may supplement scientific information, but it is not an adequate substitute for valid and available scientific information. Common sources of nonscientific information include anecdotal information, non-expert opinion, and hearsay.
- E. Absence of Valid Scientific Information. Where there is an absence of valid scientific information or incomplete scientific information relating to a critical area, leading to uncertainty about the risk to critical area function of permitting an alteration of or impact to the critical area, the Director shall:
1. Take a “precautionary or no risk approach” that strictly limits development and land use activities until the uncertainty is sufficiently resolved; and
  2. Require an effective adaptive management program that relies on scientific methods to evaluate how well regulatory and non-regulatory actions protect the critical area. An adaptive management program is a formal and deliberate scientific approach to taking action and obtaining information in the face of uncertainty. An adaptive management program shall:
    - a. Address funding for the research component of the adaptive management program;
    - b. Change course based on the results and interpretation of new information that resolves uncertainties; and
    - c. Commit to the appropriate time frame and scale necessary to reliably evaluate regulatory and non-regulatory actions affecting protection of critical areas and anadromous fisheries.

#### **SMP17.05.075 Application**

- A. Critical Areas Identification. Prior to the review of any proposed development activity requiring any city permit, the applicant shall submit to the Director a completed critical area identification application on a form provided by the city. The Director shall review the application, conduct a site inspection if deemed necessary, review other information available pertaining to the site and the proposal, and make a determination as to whether any critical areas may be affected by the proposal and if a more detailed critical area report shall be submitted.
- B. Critical Areas Identification Indicators. The Director may use the following indicators to assist in determining the need for a critical area report:
1. Indication of the critical area on the city critical areas maps that may be impacted by the proposed activity;
  2. Information and scientific opinions from appropriate agencies, including but not limited to the State Departments of Fish and Wildlife, Natural Resources, and Ecology;

3. Documentation, from a scientific or other reasonable source, of the possible presence of a critical area; or
4. A finding by a qualified professional or a reasonable belief by the Director that a critical area may exist on or adjacent to the site of the proposed activity.

#### **SMP17.05.080 Critical areas review**

- A. The Director shall perform a critical areas review of all applications for land use activities within critical areas, their buffers, or lands within 200 feet of a critical area, unless otherwise provided in this chapter.
- B. The Director shall verify the information submitted by the applicant to:
  1. Confirm the nature and type of critical areas;
  2. Determine if the applicant must conduct further studies including submittal of a critical areas report to allow proper analysis of the project impact upon a critical area or its buffer;
  3. Determine whether the development proposal is consistent with the purpose, goals and intent of this chapter and title;
  4. Determine whether any alterations to the critical area may be avoided by reasonable modification of the proposal;
  5. Determine if the management, mitigation, or monitoring plans, if any, proposed by the applicant are sufficient to carry out the intent of this chapter and title.

#### **SMP17.05.085 Critical areas report**

- A. If required by the community development Director, the applicant shall submit a critical areas report prepared by a qualified professional as defined herein. The report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance and reference the source of science used. The report shall evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this title. Unless otherwise provided, a critical areas report may be supplemented by or composed, in whole or in part, of any reports or studies required by other laws and regulations or previously prepared for and applicable to the development proposal site, as approved by the Director. As a minimum, the report shall contain the following:
  1. The name and contact information of the applicant, a description of the proposal, and identification of the permit requested.
  2. A copy of the site plan for the development proposal showing:
    - a. Identified critical areas, buffers, and the development proposal with dimensions;

- b. Limits of any areas to be cleared; and
  - c. A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations.
3. The dates, names, and qualifications of the persons preparing the report and documentation of any fieldwork performed on the site.
  4. Identification and characterization of all critical areas, including wetlands, water bodies, and buffers adjacent to the proposed project area.
  5. A statement specifying the accuracy of the report, and all assumptions made and relied on.
  6. An analysis of site development alternatives.
  7. A description of reasonable efforts made to apply mitigation sequencing as set forth in this Appendix to avoid, minimize, and mitigate impacts to critical areas.
  8. Plans for adequate mitigation, as needed, to offset any impacts, including, but not limited to:
    - a. The impacts of any proposed development within or adjacent to a critical area or buffer on the critical area completed by a professional biologist or ecologist; and
    - b. The impacts of any proposed alteration of a critical area or buffer on the development proposal, other properties and the environment.
  9. A discussion of the performance standards applicable to the critical area and proposed activity, including, but not limited to, allowable runoff, tree canopy preservation, and downstream siltation.
  10. Financial guarantees to ensure compliance.
  11. Any additional information required for the critical area as specified by the Director.
  12. An assessment of what impact the use of low impact development facilities will have on any adjacent critical areas.

**SMP17.05.087 Mitigation sequencing**

- A. Applicants shall demonstrate that all reasonable efforts have been examined with the intent to avoid and minimize impacts on critical areas. When an alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference, and may include a combination of:

1. Avoiding the impact altogether by not taking certain action or parts of an action;
  2. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
  3. Rectifying the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by repairing, rehabilitating, or restoring the affected environment to the historical conditions or the conditions existing at the time of the initiation of the project;
  4. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineering or other methods;
  5. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
  6. Compensating for the impact to wetlands, critical aquifer recharge areas, frequently flooded areas, and habitat conservation areas by replacing, enhancing, or providing substitute resources or environments; and
  7. Monitoring the hazard or other required mitigation and taking remedial action when necessary.
- B. Mitigation must also meet the goals, provisions, and requirements of Chapter SMP17.17 FMC, and comply with any mitigation standards set forth in this title.

**SMP17.05.095 Critical areas protective measures**

- A. Critical Area Markers and Signs. The boundary at the outer edge of critical area tracts and easements shall be delineated with permanent survey stakes, using iron or concrete markers as established by local survey standards. The boundary at the outer edge of the critical area or buffer shall be identified with temporary signs prior to any site alteration. Such temporary signs shall be replaced with permanent signs prior to occupancy or use of the site.
- B. Notice on Title.
1. In order to inform subsequent purchasers of real property of the existence of critical areas, the owner of any property containing a critical area or buffer on which a development proposal is submitted shall file a notice with the county auditor. The notice shall state the presence of the critical area or buffer on the property, of the application of this title to the property, and the fact that limitations on actions in or affecting the critical area or buffer may exist. The notice shall run with the land.
  2. This notice on title shall not be required for a development proposal by a public agency or public or private utility within a recorded easement or right-of-way, where the agency

or utility has been adjudicated the right to an easement or right-of-way, or at the site of a permanent public facility.

3. The applicant shall submit proof that the notice has been filed for public record before the city approves any development proposal for the property or, in the case of subdivisions, short subdivisions, planned unit developments, and binding site plans, at or before recording.

#### C. Native Growth Protection Areas.

1. Unless otherwise required by this title, native growth protection areas shall be used in development proposals for subdivisions, short subdivisions, planned unit developments, and binding site plans to delineate and protect those contiguous critical areas and buffer for all landslide hazard areas and buffers, all wetlands and buffers, all habitat conservation areas, and all other lands to be protected from alterations as conditioned by project approval and permit.
2. Native growth protection areas shall be designated on the face of the plat or recorded drawing in a format approved by the city. The designation shall include an assurance that native vegetation will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, and protecting plants, fish, and animal habitat. The designation shall also assure the right of the city to enforce the terms of the restriction.

#### D. Critical Area Tracts.

1. Critical area tracts shall be used in development proposals for subdivisions, short subdivisions, planned unit developments, and binding site plans to delineate and protect the following contiguous critical areas and buffers listed below that total 5,000 or more square feet: landslide hazard areas and buffers, wetlands and buffers, habitat conservation areas, and all other lands to be protected from alterations as conditioned by project approval.
2. Critical area tracts shall be recorded on all documents of title of record for all affected lots.
3. Critical area tracts shall be designated on the face of the plat or recorded drawing in a format approved by the city. The designation shall include an assurance that native vegetation will be preserved for the purpose of preventing harm to property and the environment, including, but not limited to, controlling surface water runoff and erosion, maintaining slope stability, buffering, and protecting plants, fish, and animal habitat. The designation shall also contain the right of the city to enforce the terms of the restriction.
4. The city may require that any required critical area tract be dedicated to the city, held in an undivided interest by each owner of a building lot within the development with

ownership interest passing with the ownership of the lot, or held by an incorporated homeowners' association or other legal entity.

- E. Building Setback. Unless otherwise provided, buildings and other structures shall be set back a distance of 15 feet from the edges of all critical area buffers or from the edges of all critical areas, if no buffers are required. The following may be allowed in the setback area: landscaping, uncovered decks, building overhangs extending no more than 18 inches into the setback area, and impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to water quality regulations as adopted by the city.

**SMP17.05.100 Compliance**

- A. Approval of a development proposal does not discharge the obligation of the applicant to comply with the provisions of this title.

**SMP17.05.120 Bonding**

- A. Performance Bonds. The Director shall require the holder of a permit to post 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 this chapter and title and, in addition, to secure compliance with other conditions and limitations set forth in the permit including critical area restoration work. The amount and the conditions of the bond shall be consistent with the purposes of this chapter and title. In the event of a breach of any condition of any such permit, the Director may demand of the surety that the full amount of the bond be tendered to the city, or such lesser amount as the Director determines is necessary to restore the critical area. The Director may allow the surety to perform the remedial work. Until such written release of the bond, the principal or surety cannot be terminated or canceled. The Director shall release the bond upon determining that:
  - 1. All activities, including any required compensatory mitigation, have been completed in compliance with the terms and conditions of the permit and the requirements of this chapter and title; and
  - 2. Upon the posting by the applicant of a maintenance bond in accordance with the provisions of this chapter and title.
- B. Maintenance Bonds. The Director shall require the holder of a development permit issued pursuant to this title to post a cash performance bond or other security acceptable to the Director in an amount and with surety and conditions sufficient to guarantee that structures, improvements, and mitigation required by the permit or by this title perform satisfactorily for a minimum of two years after they have been completed. The Director shall release the maintenance bond upon determining that performance standards established for evaluating the effectiveness and success of the structures, improvements, and/or compensatory mitigation have been satisfactorily met for the required period. For compensation projects, the performance standards shall be those contained in the mitigation plan developed and approved during the permit review process. The maintenance bond applicable to a

compensation project shall not be released until the Director determines that performance standards established for evaluating the effect and success of the project have been met.

**SMP17.05.180 Assessment relief**

- A. The city of Fife may request that the assessor of Pierce County consider critical areas regulations in determining the fair market value of land. Any owner of an undeveloped critical area who has dedicated an easement or entered into a perpetual conservation restriction with the city or a nonprofit organization to permanently control some or all regulated activities may request to have that portion of land assessed consistent with those restrictions. For purposes of determining the benefitted area and the amount of assessment for any LID, ULID, or similar special assessment district, the easement and/or perpetual conservation restriction shall be taken into account.

**SMP17.05.190 Critical Areas Maps and inventory**

- A. The approximate location and extent of critical areas in the city is displayed on the city critical area maps. The maps are to be used as guides to show the general location and extent of critical areas. Critical areas not shown on the city critical areas maps are presumed to exist in the city and are protected under all the provisions of this chapter. In the event that any of the critical area designations shown on the maps conflict with the criteria set forth in this chapter, the criteria shall control.

**Chapter SMP17.07**  
**AQUIFER RECHARGE AREAS**

- SMP17.07.010 Purpose and intent
- SMP17.07.020 Definitions
- SMP17.07.030 Applicability
- SMP17.07.040 Surface area – Hydrogeologic assessment

**SMP17.07.010 Purpose and intent**

A. The purpose of this chapter is to protect important water supplies from additional degradation originating from land use activities. It is the intent of the chapter that, due to the exceptional vulnerability and susceptibility of the aquifer recharge areas to further contamination, groundwater resources in the aquifer system be safeguarded from hazardous substance and waste pollution. This will be accomplished by controlling or prohibiting land use activities that introduce such pollution hazards within delineated aquifer recharge areas.

**SMP17.07.020 Definitions**

- A. “Animal feed lots” are sites of land where volumes of animal waste material capable of impacting groundwater resources are deposited.
- B. “Aquifer” means a saturated geologic formation which will yield a sufficient quantity of water to serve as a private or public water supply.
- C. “Aquifer recharge area” is an area where the potential for contamination of groundwater resources is high.
- D. “Contaminant” means any chemical, physical, biological, or radiological substance that does not occur naturally or occurs at concentrations greater than those in natural groundwater.
- E. “DRASTIC” is a model developed by the national water well association and the environmental protection agency for use in measuring aquifer susceptibility.
- F. “Facility” means all structures, contiguous land, appurtenances, and other improvements on the land used for recycling, reusing, reclaiming, transferring, storing, treating, disposing, or otherwise handling a hazardous substance. This includes underground and above ground tanks and any operations that handle, use, dispose of, or store hazardous substances.
- G. “Groundwater” means all water found beneath ground surface, including slowly moving subsurface water present in aquifers and recharge areas.
- H. “Hazardous substance(s)” means any liquid, solid, gas, or sludge, including any materials, substance, commodity, or waste, regardless of quantity, that exhibits any of the

characteristics or criteria of hazardous waste; and including waste oil and petroleum products.

- I. “Hazardous substance processing or handling” is use, storage, manufacture, or other land use activity involving hazardous substances. It does not include individually packaged household consumer products or quantities of hazardous substances less than five gallons in volume per container. Hazardous substances shall not be disposed of on-site unless in compliance with dangerous waste regulations, WAC 173-303, and any applicable local ordinances.
- J. “Hazardous waste” means all dangerous waste and extremely hazardous waste as designated pursuant to RCW 70.105 and WAC 173-303 as defined below;
- K. “Dangerous waste” is any discarded, useless, unwanted, or abandoned substance including, but not limited to, certain pesticides, or any residues or containers of such substances which are disposed of in such a quantity or concentration as to pose a substantial present or potential hazard to human health, wildlife, or the environment because such wastes or constituents or combinations of such wastes:
  - 1. Have short lived, toxic properties that may cause death, injury, or illness or have mutagenic, or carcinogenic properties; or
  - 2. Are corrosive, explosive, flammable, or may generate pressure through decomposition or other means.
- L. “Extremely hazardous wastes” means waste which:
  - 1. Will persist in a hazardous form for several years or more at a disposal site and which in its persistent form presents a significant environmental hazard and may be concentrated by living organisms through the food chain or may affect the genetic make-up of humans or wildlife; and
  - 2. Is disposed of at a disposal site in such quantities as would present an extreme hazard to humans or the environment.
- M. “Hazardous waste treatment and storage facility” means a facility that treats and stores hazardous waste and is authorized pursuant to RCW70.105 and WAC 173-303. It includes all contiguous land and structures used for recycling, reusing, reclaiming, transferring, storing, treating, or disposing of hazardous waste. Treatment includes physical, chemical, or biological processing of hazardous wastes to make such waste non-dangerous or less dangerous and safer for transport, amenable for energy or material resource recovery. Storage includes the holding of waste for a temporary period but not the accumulation of waste on the site of generation as long as the storage complies with applicable requirements of WAC173-303.
- N. “On-site treatment and storage facility” means a facility that treats or stores hazardous wastes generated on the same geographically contiguous property.

- O. “Off-site treatment and storage facility” means a facility that treats or stores hazardous wastes generated on property other than those on which the off-site facility is located.
- P. “Hydrogeologic assessment” is a report detailing the subsurface conditions of a site and which indicates the susceptibility and potential for contamination of groundwater supplies.
- Q. “Impervious surface” is natural or manmade material on the ground that does not allow surface water to penetrate into the soil. Impervious surfaces consist of buildings, parking areas, driveways, roads, sidewalks, and any other areas of concrete, asphalt, plastic, etc.
- R. “Landfill” means a disposal facility or part of a facility at which solid waste is permanently placed in or on land and which is not a land spreading disposal facility.
- S. “Permeable surfaces” are sand, gravel, and other penetrable deposits on the ground which permit movement of groundwater through the pore spaces, and which permit the movement of fluid to the groundwater.
- T. “Underground tank” means any one or a combination of tanks (including underground pipes connected thereto) which are used to contain or dispense an accumulation of hazardous substances or hazardous wastes, and the volume of which (including the volume of such substances or waste within the underground pipes) is 10 percent or more beneath the surface of the ground.

**SMP17.07.030 Applicability**

- A. Aquifer recharge areas are areas where the potential for contamination of groundwater resources is high.
- B. The city will employ the latest edition of the National Water Well Association and U.S. Environmental Protection Agency’s DRASTIC map of Pierce County to identify areas where the potential for contamination of groundwater resources is high. Areas rated and mapped 180 or greater on the DRASTIC index will be included in the aquifer recharge area.

**SMP17.07.040 Surface area – Hydrogeologic assessment**

- A. Permeable Surfaces. Whenever possible, uses that are not otherwise identified as a threat to the aquifer shall provide as much open, permeable surface as possible, and impermeable surfaces shall be minimized to the extent possible consistent with other federal, state, county, and city laws, regulations, and ordinances.
- B. Hydrogeologic Assessment.
  - 1. Because all land areas within the city are designated as aquifer recharge areas, the following activities shall require a hydrogeologic assessment when proposed within the city:

- a. Hazardous substance processing or handling.
  - b. Hazardous waste treatment and storage facility.
  - c. On-site disposal of sewage for subdivisions and commercial and industrial sites.
  - d. Wastewater treatment plant sludge disposal.
  - e. Animal feed lots.
  - f. Landfills.
  - g. Any other activity that the Director determines may have an adverse impact on groundwater quality.
2. The hydrogeologic assessment shall include, but is not limited to, the following:
- a. Information sources.
  - b. Geologic setting. Include well or borings used to identify information.
  - c. Background water quality.
  - d. Groundwater elevations.
  - e. Location/depth to perched water tables.
  - f. Recharge potential of facility site (permeability/transmissivity).
  - g. Groundwater flow direction and gradient.
  - h. Currently available data on wells within 1,000 feet of the site.
  - i. Currently available data on any spring located within 1,000 feet of the site.
  - j. Surface water location and recharge potential.
  - k. Water supply source to facility.
  - l. Any sampling schedules necessary.
  - m. Discussion of the effects of the proposed project on the groundwater resource.
  - n. Other information required by responsible agencies.
3. The hydrogeologic assessment shall be prepared by a qualified professional hydrogeologist, geologist, or engineer, licensed in the state of Washington, with

experience in hydrogeologic assessments. This assessment shall be in addition to the critical areas report required by FMC SMP17.05.085.

4. Uses requiring a hydrogeologic assessment may be conditioned or denied based on evaluation of the hydrogeologic assessment by the Director or by an expert accepted by the Director. The hydrogeologic assessment must show that the project or use does not present a threat to the aquifer and will not cause contaminants to enter the aquifer.

### C. Storage Tank Permits.

#### 1. Facilities with Underground Tanks (New Underground Tanks).

- a. All new underground storage facilities used or to be used for the underground storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:
  - i. Prevent releases due to corrosion or structural failure for the life of the tank;
  - ii. Be protected against corrosion, constructed of noncorrosive material, steel clad with a noncorrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substance; and
  - iii. Use material in the construction or lining of the tank which is compatible with the substance to be stored.

#### 2. Aboveground Tanks.

- a. No new aboveground storage facility or part thereof shall be fabricated, constructed, installed, used, or maintained in a manner which may allow the release of a hazardous substance to the ground, groundwater, or surface waters of the city.
- b. No new aboveground storage facility or part thereof shall be fabricated, constructed, installed, used, or maintained without having constructed around and under it an impervious containment area enclosing or underlying the tank or part thereof.
- c. A new aboveground tank will require a secondary containment system either built into the tank structure or a dike system built outside of the tank for all tanks in the city. The dike shall be so constructed as to be able to contain a sudden discharge of the entire content of the tank as if the tank were filled to capacity, to be contained in such a way as to not permit any of the contents to leave the containment area, or permeate the surface of the ground.
- d. Any plan for an aboveground tank will include a plan for removal of all materials within the tank should a rupture occur.

**Chapter SMP17.09**  
**FREQUENTLY FLOODED AREAS**

- SMP17.09.010 Purpose
- SMP17.09.020 Definitions
- SMP17.09.030 Applicability
- SMP17.09.040 Regulation
- SMP17.09.050 Special consideration for anadromous fish

**SMP17.09.010 Purpose**

- A. Floodplains and other areas subject to flooding perform important hydrologic functions and may present a risk to persons and property. The purpose of this chapter is to both protect such areas and minimize flooding hazards.

**17.09.020 Definitions**

- A. “Areas of special flood hazard” means land in a floodplain within the city subject to a one percent or greater chance of flooding in a given year.
- B. “Base flood” means the flood having a one percent chance of being equaled or exceeded in a given year, also referred to as the “100-year flood”.
- C. “Base flood elevation” means water surface elevation, in feet, above mean sea level for the base flood and referenced to the National Geodetic Vertical Datum of 1929 (or Pierce County datum or United States Coast and Geodetic Datum of 1929 which are the same).
- D. “Flood” or “flooding” means a general and temporary condition of partial or complete inundation of normal dry land areas from:
  - 1. The overflow of inland or tidal waters; and/or
  - 2. The unusual and rapid accumulation of runoff of surface waters from any source.
- E. “Floodfringe” is the area subject to inundation by the base flood, but outside the limits of the floodway, and which may provide needed temporary storage capacity for flood waters.
- F. “Flood insurance rate map (FIRM)” means the official map on which the Federal Insurance Administration has delineated areas of special flood hazard and the risk premium zones applicable in the city.
- G. “Flood hazard areas” means land in a floodplain within the city subject to a one percent or greater chance of flooding in a given year.
- H. “Floodplain” means the total area subject to inundation by the base flood, including the flood fringe and floodway areas.

- I. “Floodway” means the channel of a river, or other watercourse and the adjacent land areas that must be reserved in order to convey and discharge the base flood, without cumulatively increasing the water surface elevation by more than one foot, and those areas designated as deep and/or fast-flowing water

**SMP17.09.030 Applicability**

- A. Floodplains and other areas subject to flooding and thus performing important hydrological functions.
- B. All flood hazard areas shall be as identified in the following scientific and engineering reports:
  - 1. The latest edition of “The flood insurance study for the city of Fife, Washington,” with the accompanying flood insurance rate maps, Federal Emergency Management Agency (FEMA).
  - 2. The latest edition of “The flood insurance study for Pierce County, Washington,” with the accompanying flood insurance rate maps, Federal Emergency Management Agency (FEMA).

**SMP17.09.040 Regulation**

- A. All development in flood hazard areas shall comply with Chapter 15.40 FMC, and the requirements of the National Flood Insurance Program (NFIP).

**SMP17.09.050 Special consideration for anadromous fish**

- A. Development in flood hazard protection areas that involve riparian habitat shall also comply with Chapter SMP17.15 FMC.

## Chapter SMP17.11 GEOLOGICALLY HAZARDOUS AREAS

SMP17.11.010	Purpose
SMP17.11.020	Definitions
SMP17.11.030	Hazardous areas
SMP17.11.037	Other hazard areas
SMP17.11.040	Regulation
SMP17.11.050	Geotechnical reports
SMP17.11.060	Performance standards
SMP17.11.070	Geotechnical assessments
SMP17.11.080	Buffer requirements
SMP17.11.090	Modifications to buffer width
SMP17.11.100	Building setback and construction near buffer
SMP17.11.110	On-site sewage disposal

### **SMP17.11.010 Purpose**

- A. The intent of the classification and designation of geologically hazardous areas is to classify and designate areas on which development should be prohibited, restricted or otherwise controlled because of danger from geologic hazards. For the purpose of this chapter, geologically hazardous areas include areas susceptible to erosion, sliding, earthquake, or other geological events.

### **SMP17.11.020 Definitions**

- A. “Alluvial geological unit” means recent stream, lake, swamp and beach deposits of gravel, sand, peat and silt.
- B. “Buffer” is an area contiguous with a critical area that is required for the integrity, maintenance, function, and structural stability of the critical area.
- C. “Clearing” means the removal of timber, brush, grass, ground cover, or other vegetative matter from a site which exposes the earth’s surface.
- D. “Erosion” means the wearing away of the earth’s surface as a result of movement of wind, water, or ice.
- E. “Erosion hazard areas” are areas that because of natural characteristics, including vegetative cover, soil texture, slope, gradient, and rainfall patterns, or manmade changes to such characteristics, are vulnerable to erosion.
- F. “Geologically hazardous areas” are those 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 land uses because of concerns for public health, or safety.

- G. “Geotechnical assessment” means an assessment prepared by a geologist or geotechnical engineer licensed as a civil engineer with the state of Washington, detailing the surface and subsurface conditions of a site and delineating the areas of a property subject to geologic hazards.
- H. “Geotechnical report” means a report prepared by a geologist or geotechnical engineer licensed with the state of Washington as a civil engineer, which evaluates the site conditions and mitigating measures necessary to insure that the risks associated with geologic hazards are eliminated on the site proposed to be altered.
- I. “Ground amplification” means an increase in the intensity of earthquake induced ground shaking which occurs at a site where thick deposits of unconsolidated soil or surficial geologic materials are present.
- J. “Landslide” means the abrupt down slope movement of soil, rocks, or other surface matter on a site. Landslides include, but are not limited to, slumps, mudflows, earthflows, rockfall, and snow avalanches.
- K. “Landslide hazard areas” are areas potentially subject to risk of mass movement due to a combination geologic, topographic, and hydrologic factors.
- L. “Liquefaction” means a process by which a water saturated granular (sandy) soil layer loses strength because of ground shaking commonly caused by an earthquake.
- M. “Recessional outwash geologic unit” means sand and gravel materials deposited by melt-water streams from receding glaciers.
- N. “Seismic hazard areas” are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, or soil liquefaction.
- O. “Toe of slope” is a distinct topographic break in slope at the lower most limit of an area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.
- P. “Top of slope” is a distinct topographic break in slope at the upper most limit of an area where the ground surface drops 10 feet or more vertically within a horizontal distance of 25 feet.

#### **SMP17.11.030 Hazardous areas**

##### **A. Erosion hazard areas are:**

1. Those areas that, because of natural characteristics, including vegetative cover, soil texture, slope, gradient, and rainfall patterns, or manmade changes to such characteristics, are vulnerable to erosion; or

2. Those areas identified by the United States Department of Agriculture Soil Conservation Service as having a “severe” rill and inter-rill erosion hazard.

B. Landslide hazard areas are:

1. Areas potentially subject to risk of mass movement due to geologic, topographic, or hydrologic factors.
2. Areas meeting the following criteria:
  - a. Areas delineated by the United States Department of Agriculture, Soil Conservation Service, as having a severe limitation, because of slope conditions, for building site development; or
  - b. Areas with all three of the following characteristics:
    - i. Slopes greater than 15 percent; and
    - ii. Hillsides intersecting geologic contacts with relatively permeable sediment overlying a relatively impermeable sediment of bedrock; and
    - iii. Springs or groundwater seepage; or
  - c. Areas potentially unstable as a result of rapid stream incision or stream bank erosion; or
  - d. Areas with visible signs of earth movement such as rockslides, earthflows, mudflows, and landslides; or
  - e. Those areas mapped by the Department of Ecology (Coastal Zone Atlas) or the Department of Natural Resources (slope stability mapping) as unstable (“U” or Class 3), unstable old slides (“UOS” or Class 4), or unstable recent slides (“URS” of Class 5); or
  - f. Areas designated as quaternary slumps, earthflows, mudflows, lahars, or landslides on maps published by the U.S. Geological Survey or Department of Natural Resources; or
  - g. Areas that have shown movement during the Holocene epoch (from 10,000 years ago to the present) or that are underlain or covered by mass wastage debris of that epoch; or
  - h. Slopes that are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials; or

- i. Slopes having gradients steeper than 80 percent subject to rock fall during seismic shaking; or
- j. Areas located on an alluvial fan, presently or potentially subject to inundation by debris flows or catastrophic flooding; or
- k. Any area with a slope of 40 percent or steeper and with a vertical relief of 10 or more feet, except areas composed of consolidated rock. A slope is delineated by establishing its toe and top and measured by averaging the inclination over at least 10 feet of vertical relief.

**SMP17.11.037 Other hazard areas.**

- A. Other hazard areas subject to the provisions of this chapter include those areas determined by the Director to be susceptible to other geologic events including mass wasting, debris flows, rock falls, and differential settlement.

**SMP17.11.040 Regulation**

- A. For all regulated activities proposed within designated geologically hazardous areas, in addition to a critical areas report as required by FMC 17.05.085, a geotechnical report shall be prepared by a geologist or geotechnical engineer licensed in the state of Washington with experience analyzing geologic, hydrologic, and groundwater flow systems. If an applicant can demonstrate, through submittal of a geotechnical assessment, that no landslide or erosion hazards exist on site, the requirement for a geotechnical report may be waived by the Director.

**SMP17.11.050 Geotechnical reports**

- A. If a geotechnical report is required it shall contain, at a minimum, the following information:
  - 1. Site geology information required:
    - a. Topographic data: contour map of proposed site at a scale of one inch equals 200 feet, slopes shall be clearly delineated for the ranges between 15 and 29 percent and 30 percent and greater, including figures for area coverage of each slope category on the site.
    - b. Subsurface data: boring logs and exploratory methods, soil and rock stratigraphy, groundwater levels including seasonal changes.
    - c. Site history: description of any prior grading, soil instability, or slope failure.
    - d. Seismic hazard: data concerning the vulnerability of the site to seismic events.
  - 2. Geotechnical engineering information required:

- a. Slope stability studies and opinion of slope stability;
- b. Proposed angles of cut and fill slopes and site grading requirements;
- c. Structural foundation requirements and estimated foundation settlements;
- d. Soil compaction criteria;
- e. Proposed surface and subsurface drainage;
- f. Lateral earth pressures;
- g. Erosion vulnerability of site;
- h. Suitability of on-site soil for fill;
- i. Laboratory data and soil index properties for soil samples; and
- j. Building limitations.

3. Site Evaluation. Evaluation of the ability of the site to accommodate the proposed activity.

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

**SMP17.11.060 Performance standards**

- A. The Director shall evaluate all geotechnical reports for landslide and erosion hazard areas to insure that the following standards are met:

1. Location and Extent of Development.

- a. Development must be located to minimize disturbance and removal of vegetation;
- b. Structures must be clustered where possible to reduce disturbance and maintain natural topographic character; and
- c. Structures should conform to the natural contours of the slope and foundations should be tiered where possible to conform to existing topography of the site.

2. Design of Development.

- a. All development proposals shall be designed to minimize the footprint of the building and other disturbed areas;

- b. All development proposals shall be designed to minimize coverage of lot with impervious materials;
  - c. Roads, walkways, and parking areas should be designed to parallel the natural contours of the site; and
  - d. Access shall be in the least sensitive area of the site.
3. Additional standards for slopes 30 percent or greater: All proposed development on slopes 30 percent or more should be avoided.

#### **SMP17.11.070 Geotechnical assessments**

- A. Should the applicant question the presence of landslide or erosion hazard areas on the site, the applicant may submit a geotechnical assessment prepared by a geologist or geotechnical engineer licensed as a professional civil engineer in the state of Washington.
- B. The geotechnical assessment shall include at a minimum the following:
  1. A discussion of the surface and subsurface geologic conditions of the site;
  2. A site plan of the area delineating all areas of the site subject to landslide and erosion hazards based on mapping and criteria referenced in above. A map meeting the criteria set forth in FMC SMP17.11.050 above shall be included.
- C. If the geotechnical assessment demonstrates, to the satisfaction of the Director, that the proposed site is not located in any landslide and erosion hazard areas, then the requirements of this chapter shall not apply.

#### **SMP17.11.080 Buffer requirements**

- A. A buffer, consisting of native vegetation, and measured in a perpendicular distance from all edges, shall be required from the top of slope, toe of slope, and all sides of all landslide or erosion hazard areas that measure 10 feet or more in vertical elevation change from top to toe of slope, as identified in the geotechnical report, maps, and by field checking. Minimum buffer distance requirements for buffer areas are determined by the Director to eliminate or minimize the risk of property damage, death or injury resulting from erosion and landslides caused in whole or in part by development, based upon review of a concurrence with the critical area report and geotechnical report prepared by a qualified professional.
  1. The minimum buffer shall be equal to the height of the slope or 50 feet, whichever is greater.
  2. The buffer may be reduced to a minimum of 10 feet when a qualified professional demonstrates to the Director's satisfaction that the reduction will adequately protect the proposed development, adjacent developments and uses and the subject critical area.

3. The buffer may be increased where the Director determines a larger buffer is necessary to prevent risk of damage to proposed and existing development:

**SMP17.11-Table 1: Increased Buffer Requirements**

Land Use	Vertical relief (less than 75 feet)	Vertical relief (equal to or greater than 75 feet)
a. Residential uses	60 feet	75 feet
b. Commercial and industrial uses	75 feet	100 feet

- B. The buffer shall be clearly staked before any construction or clearing. The city shall inspect the site to confirm that the buffer requirements of this chapter have been met before any construction or clearing begins. The buffer area shall remain in a natural state, and deed instruments shall dedicate the critical area and its buffer, as such, to run with the land.

**SMP17.11.090 Modifications to buffer width**

- A. When the geotechnical report suggests that a lesser buffer distance, and design and engineering solutions will meet the intent of this chapter, such reduced buffer width and design and engineering solutions may be permitted. Should the report indicate that a greater buffer than required above is needed to meet the intent of this chapter, the greater buffer shall be required.

**SMP17.11.100 Building setback and construction near buffer**

- A. A minimum setback of 15 feet shall be maintained for the construction of any impervious surface(s) greater than 100 square feet of base coverage. Clearing grading and filling near the buffer shall only be allowed if the applicant can demonstrate that vegetation in the buffer will not be damaged.

**SMP17.11.110 On-site sewage disposal**

- A. On-site sewage disposal systems are prohibited within designated landslide and erosion hazard areas.

**Chapter SMP17.13**  
**SEISMIC HAZARD AREAS**

SMP17.13.010	General
SMP17.13.020	Classification
SMP17.13.030	Geotechnical report
SMP17.13.040	Geotechnical report – Contents
SMP17.13.050	Geotechnical assessments
SMP17.13.060	Location of critical facilities

**SMP17.13.010 General**

A. Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction, lateral spreading, or surface faulting.

**SMP17.13.020 Classification**

A. The following criteria shall be used in determining seismic hazard areas:

1. Areas identified on U.S. Geologic Survey seismic hazard maps or Washington State Department of Natural Resources seismic hazard maps for Western Washington; or
2. Areas having a slope greater than 30 percent; or
3. Areas of poorly compacted artificial fill.

**SMP17.13.030 Geotechnical report**

A. For all regulated activities proposed within designated seismic hazard areas or within 200 feet of such areas, a critical areas report as required by FMC 17.05.085 and a geotechnical report prepared by a geologist or geotechnical engineer licensed as a civil engineer in the state of Washington shall be submitted. If an applicant can demonstrate through submittal of a geotechnical assessment that no seismic hazards exist on-site, the requirement for a geotechnical report may be waived by the Director.

**SMP17.13.040 Geotechnical report – Contents**

A. The geotechnical report shall include at a minimum the following:

1. A discussion of subsurface conditions;
2. A complete discussion of the potential impacts of seismic activity on the site;
3. A site plan of the area delineating all areas of the property subject to seismic hazards;
4. A discussion of mitigating measures which can be taken to eliminate seismic risks;

5. A site map showing all known and mapped faults within 200 feet of the project area or that have the potential to be affected by the proposal; and
6. An evaluation of the effectiveness of the proposed mitigation measures.

**SMP17.13.050 Geotechnical assessments**

- A. Should the applicant question the presence of seismic hazard areas on the site, the applicant may submit a geotechnical assessment prepared by a geologist or geotechnical engineer licensed as a professional civil engineer in the state of Washington.
- B. The geotechnical assessment shall include at a minimum the following:
  1. A discussion of the surface and subsurface geologic conditions of the site;
  2. A site plan of the area delineating all areas of the site subject to seismic hazards based on mapping and criteria referenced in FMC 17.13.020.
  3. A contour map of the proposed site, at a scale of one inch equals 200 feet, clearly delineating slopes for ranges between 15 and 29 percent and 30 percent and greater, and including figures for area coverage of each slope category on the site.
- C. If the geotechnical assessment demonstrates, to the satisfaction of the Director, that the proposed site is not located in any seismic hazard areas, then the requirements of this chapter shall not apply.

**SMP17.13.060 Location of critical facilities**

- A. No critical facilities shall be constructed or located in seismic hazard areas. Critical facilities shall include the following:
  1. Hospitals and other medical facilities having surgery and emergency treatment areas;
  2. Structures housing, supporting or containing sufficient quantities of toxic or explosive substances to be dangerous to the safety of the general public if released;
  3. Buildings for schools through secondary or child day care centers, with a capacity of greater than 500 students;
  4. Buildings for colleges or adult education schools with a capacity of over 500 students; or
  5. Medical facilities with 50 or more resident incapacitated patients.

**Chapter SMP17.15**  
**FISH AND WILDLIFE HABITAT CONSERVATION AREAS**

SMP17.15.010	Intent
SMP17.15.020	Definitions
SMP17.15.030	General
SMP17.15.040	Fish and wildlife habitat conservation areas
SMP17.15.050	Fish and wildlife habitat buffers
SMP17.15.060	Classification and mapping
SMP17.15.070	Habitat assessment
SMP17.15.080	Habitat management plan
SMP17.15.085	Performance standards
SMP17.15.090	Establishing buffers
SMP17.15.100	Building setback and construction near buffer
SMP17.15.110	Fencing from farm animals
SMP17.15.120	Allowable activities in the buffer
SMP17.15.130	Granting permits
SMP17.15.140	Sensitive area management tracts
SMP17.15.150	Protection of sensitive area management tracts
SMP17.15.160	Marking of Habitat Areas during construction
SMP17.15.170	Permanent marking of management tract
SMP17.15.180	Additional requirements
SMP17.15.190	Deed restrictions

**SMP17.15.010 Intent**

- A. It is the intent of this chapter that areas of critical fish and wildlife habitat be protected and preserved from degradation due to incompatible land use in or adjacent to the areas. The creation of isolated pockets of habitat and the resultant isolation of species populations should be avoided. The natural geographic distribution of critical fish and wildlife habitat should be maintained.

**SMP17.15.020 Definitions**

- A. “Best management plan” is a plan which is developed for a property by the conservation district of U.S. Department of Agriculture, soil conservation service which specifies best management practices for control of animal wastes, stormwater runoff, and erosion.
- B. “Buffer”, for the purposes of this chapter, is an area contiguous with a critical area that is required for the integrity, maintenance, function, and structural stability of the area.
- C. “Fish and wildlife habitat conservation and protection” means land management for maintaining species in suitable habitats within their natural geographic distribution so that isolated subpopulations are not created.
- D. “Fish and wildlife habitat conservation areas” are those areas identified as being of critical importance to the maintenance of fish, wildlife, and plant species, including: areas with

which endangered, threatened, and sensitive species have a primary association; state priority habitats and areas associated with state priority species, as identified by the State Department of Fish and Wildlife; waters of the state; and habitats of local importance.

- E. “Habitat assessment” is a report prepared by a professional wildlife biologist with a degree in wildlife biology, which identifies the presence of fish and wildlife habitat conservation areas in vicinity of the proposed development.
- F. “Habitat management plan” is a report prepared by a professional wildlife biologist with a degree in wildlife biology, which discusses and evaluates the measures necessary to maintain fish and wildlife habitat conservation areas on or near a proposed development site.
- G. “Habitats of local importance” are areas, ranges, or habitats within which a species has a primary association, which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term. Examples include areas of high relative density of species richness, breeding habitat, winter range, and movement corridors. These areas may also include habitats that are of limited availability or high vulnerability to alteration, such as cliffs, talus, and wetlands.
- H. “Species of local concern” are species that are of local concern due to their population status or their sensitivity to habitat manipulation or that are a game species.

#### **SMP17.15.030 General**

- A. The provisions of this chapter apply to all lands within the city that are identified as critical fish and wildlife habitats, fish and wildlife habitats of local importance, or fish and wildlife habitat buffers.
- B. Fish and wildlife habitat areas are those areas identified as being critical to the maintenance of fish, wildlife, and plant species.

#### **SMP17.15.040 Fish and wildlife habitat conservation areas**

- A. Fish and wildlife habitat conservation areas include:
  - 1. Areas with which federally or state designated endangered, threatened, and sensitive species have a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.
    - a. Federally designated endangered and threatened species are those fish and wildlife species identified by the U.S. Fish and Wildlife Service and the National Marine Fisheries Service that are in danger of extinction or threatened to become endangered. The U.S. Fish and Wildlife Service and the National Marine Fisheries Service shall be consulted as necessary for current listing status.
    - b. State designated endangered, threatened, and sensitive species are those fish and wildlife species native to the state of Washington identified by the State Department

of Fish and Wildlife that are in danger of extinction, threatened to become endangered, vulnerable, or declining and are likely to become endangered or threatened in a significant portion of their range within the state without cooperative management or removal of threats. State designated endangered, threatened, and sensitive species are periodically recorded in WAC 232-12-014 (state endangered species), and WAC 232-12-011 (state threatened and sensitive species). The State Department of Fish and Wildlife maintains the most current listing and shall be consulted as necessary for current listing status.

2. State priority habitats and areas associated with state priority species, as identified by the State Department of Fish and Wildlife.
3. Waters of the state including rivers, streams, inland waters, underground waters, and all other surface waters and watercourses within the jurisdiction of the state of Washington, as classified in WAC 222-16-031.
4. Habitats of local importance include the following:
  - a. Areas with which state-listed monitor or candidate species or federally listed candidate species have a primary association and which, if altered, may reduce the likelihood that the species will maintain and reproduce over the long term.
  - b. Special Habitat Areas. These areas include specific habitat types which are infrequent in Fife or Pierce County and may provide specific habitats which certain animals and plants require, such as breeding habitat, winter range, and movement corridors. These areas include, but are not limited to, the following:
    - i. Oak woodlands and associated prairies;
    - ii. Prairies;
    - iii. Aspen stands;
    - iv. Meadows;
    - v. Riparian and Category I and II wetland areas.
    - vi. Naturally occurring ponds under 20 acres and their submerged aquatic beds that provide fish and animal habitat.
    - vii. Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity.
    - viii. State natural area preserves and natural resource conservation areas.

- ix. Areas established by the Puyallup Tribe of Indians tribal government as habitat areas of tribal importance for economic, social, cultural, and ceremonial reasons.
- x. Areas for which city policy supports the reestablishment of historical fisheries.

**SMP17.15.050 Fish and wildlife habitat buffers**

A. Fish and wildlife habitat buffers are areas of undisturbed natural vegetation required to ensure the retention of habitat areas. The width of the buffers shall be determined on a case-by-case basis by the Director based on the required habitat assessment and on the criteria established in this chapter.

**SMP17.15.060 Classification and mapping**

A. Fish and wildlife habitat areas are identified in the following documents:

- 1. Washington State Department of Natural Resources official water type reference maps, as amended;
- 2. Washington State Department of Fish and Wildlife priority habitats and species maps;
- 3. Department of Natural Resources State Natural Area Preserves and Natural Resources conservation area maps;
- 4. Anadromous and resident salmonid distribution maps contained in the Habitat Limiting Factors Reports published by the Washington Conservation Commission; and
- 5. Maps adopted by the city showing habitats of local importance.

**SMP17.15.070 Habitat assessment**

A. In addition to the general critical areas report requirements of FMC 17.05.085, a habitat assessment shall be required for all regulated activity proposed on a site which contains or is within 1,000 feet of a designated fish and wildlife habitat area. The habitat assessment will be prepared by a professional wildlife biologist with a degree in wildlife biology. At a minimum, habitat assessment shall contain the following:

- 1. A discussion of species or habitats known or expected to be located on or within 1,000 feet of the site, including: state or federal endangered, threatened, or sensitive species; or species of local importance; and
- 2. A site plan which clearly identifies and delineates fish and wildlife habitats found on or within 1,000 feet of the site; and
- 3. A detailed description of vegetation on and adjacent to the project area; and
- 4. Identification of any species of local importance, priority species, or endangered, threatened, sensitive or candidate species that have a primary association with habitat on

or adjacent to the project area, and assessment of potential project impacts to the use of the site by the species; and

5. A discussion of any federal, state, or local special management recommendations, including Department of Fish and Wildlife habitat management recommendations, that have been developed for species or habitats located on or adjacent to the project area; and
6. Such other information as the Director determines is necessary to adequately evaluate the impact of the regulated activity on fish and wildlife habitat.

**SMP17.15.080 Habitat management plan**

- A. If the habitat assessment demonstrates to the satisfaction of the Director that fish and wildlife habitat are not located on or within 1,000 feet of the site, then the development can proceed without further requirements for special wildlife studies; otherwise, a habitat management plan shall be submitted. The habitat management plan will be prepared by a professional wildlife biologist with a degree in wildlife biology. The habitat management plan shall contain at a minimum the following:
  1. A discussion of the project's effects on fish and wildlife habitat;
  2. A discussion of any federal, state, or local management recommendations which have been developed for species or habitats located at the site;
  3. A discussion of measures proposed to preserve existing habitats and restore any habitats which were degraded prior to the current proposed land use activity;
  4. A discussion of proposed measures which mitigate the impacts of the project;
  5. An evaluation of the effectiveness of proposed mitigation measures;
  6. A discussion of ongoing management practices which will protect fish and wildlife habitat after the project site has been fully developed, including proposed monitoring and maintenance programs; and
  7. Such further information as the Director determines is necessary to adequately assess the impact of the regulated activity upon the habitat.
- B. Habitat management plans will be sent to the Washington Department of Wildlife, the Puyallup Indian Tribe and other appropriate state and federal agencies for comment.
- C. All projects may be conditioned based on agency comments and the Director's evaluation of potential impacts to fish and wildlife habitats. Projects may be denied if the proposal will result in extirpation or isolation of a critical fish, wildlife, or plant species associated with a fish and wildlife habitat.

**SMP17.15.085 Performance standards**

A. Endangered, Threatened, and Sensitive Species.

1. No development shall be allowed within a habitat conservation area or buffer with which state or federally endangered, threatened, or sensitive species have a primary association.
2. Whatever activities are proposed adjacent to a habitat conservation area with which state or federally endangered, threatened, or sensitive species have a primary association, such area shall be protected through the application of protection measures in accordance with the critical area report prepared by a qualified professional and approved by the city. Approval for alteration of land adjacent to the habitat conservation area or its buffer shall not occur prior to consultation with the Department of Fish and Wildlife and the appropriate federal agency.
3. Bald eagle habitat shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292). Whenever activities are proposed adjacent to a verified nest territory or communal roost, a habitat management plan shall be developed by a qualified professional. Activities are considered adjacent to bald eagle sites when they are within 800 feet, or within a quarter mile (2,640 feet) and in a shorelines foraging area. The city shall verify the location of eagle management areas for each proposed activity. Approval of the activity shall not occur prior to approval of the habitat management plan by the Department of Fish and Wildlife.

B. Anadromous Fish (Fish That Spawn and Rear in Freshwater and Mature in the Marine Environment).

1. All activities, uses, and alterations proposed to be located in water bodies used by anadromous fish or in areas that affect such water bodies shall give special consideration to the preservation and enhancement of anadromous fish habitat, including, but not limited to, adhering to the following standards:
  - a. Activities shall be timed to occur only during the allowable work window as designated by the Department of Fish and Wildlife for the applicable species;
  - b. An alternative alignment or location for the activity is not feasible;
  - c. The activity is designed so that it will not degrade the functions or values of the fish habitat or other critical areas; and
  - d. Any impacts to the functions or values of the habitat conservation area are mitigated in accordance with an approved critical area report.
2. Structures that prevent the migration of salmonids shall not be allowed in the portion of water bodies currently or historically used by anadromous fish. Fish bypass facilities shall be provided that allow the upstream migration of adult fish and shall prevent fry and juveniles migrating downstream from being trapped or harmed.

3. Fills, when authorized by the Fife shoreline master program, shall not adversely impact anadromous fish or their habitat or shall mitigate any unavoidable impacts and shall only be allowed for a water-dependent use.

#### **SMP17.15.090 Establishing buffers**

- A. Based on the information provided in the habitat management plan and such other relevant information available to the Director, buffers consisting of undisturbed natural vegetation shall be required to insure retention of habitat areas. Buffer widths shall be established on a case-by-case basis by the Director. In determining buffer widths the Director shall consider, at a minimum, the following factors:
  1. The buffers proximity to specific site conditions which indicate a necessity to have a larger buffer such as landslide hazard areas or wetlands;
  2. The need to protect an important documented wildlife migratory corridor or nesting area;
  3. The presence of site specific conditions which indicate a necessity to reduce the buffer width, such as the existence of public utilities (when no feasible alternative route exists); and
  4. The possibility of reducing the buffer width if a conservation district best management plan has been established for the site and the plan protects fish and wildlife habitat to the satisfaction of the Director.

#### **SMP17.15.100 Building setback and construction near buffer**

- A. A minimum setback of 15 feet from the buffer shall be required for construction of any impervious surface(s) greater than 100 square feet in base coverage. Clearing, grading and filling near the buffer shall be allowed only if the applicant can demonstrate that vegetation within the buffer will not be damaged. The edge of the buffer shall be clearly staked and flagged before construction begins.

#### **SMP17.15.110 Fencing from farm animals**

- A. Permanent fencing shall be required to prevent farm animals, if present, from entering the buffer.

#### **SMP17.15.120 Allowable activities in the buffer**

- A. The following activities are allowed within the buffer upon approval from the Director and only if he determines the activity will not adversely impact the species for which the buffer was created:
  1. Noxious weeds, as listed in WAC 16-750, may be removed from or destroyed within the buffer, provided that the following conditions are met:

- a. Cleared areas created by such weed removal shall be revegetated to the satisfaction of the department;
  - b. Methods and time schedule for removal of such noxious weeds shall be approved by the department after consultation with other responsible agencies.
2. Previously cleared lands may be revegetated. The Director may specify plant types and time schedules for such re-vegetation.
  3. Removal of dead or diseased trees that pose a threat to property if approved by the Director.
  4. The repairing of fences.
  5. The cleaning and repair of drainage and irrigation ditches; provided that:
    - a. Vegetation is not disturbed beyond that necessary to accomplish the cleaning or maintenance;
    - b. The water body does not support salmonids;
    - c. Ditches supporting salmonids may be maintained if a best management plan is developed and implemented to the satisfaction of the Director.

**SMP17.15.130 Granting permits**

- A. A permit shall only be granted if the permit for the proposed activity, as conditioned:
  1. Is consistent with the purposes and intent of this chapter; and
  2. Avoids adverse impacts to habitats or takes affirmative and appropriate measures to minimize and compensate for unavoidable impacts; and
  3. Is compatible in design, scale, and use, with other development or potential development in the area; and
  4. Utilizes to the maximum extent possible the best available construction, design, and development techniques which result in the least adverse impact on the habitat; and
  5. All approvals shall be supported by the best available science.

**SMP17.15.140 Sensitive area management tracts**

- A. As a condition of any permit issued pursuant to this chapter, the permit holder shall be required to create a separate sensitive area management tract containing the areas determined to be habitats. Sensitive area management tracts are legally created tracts containing habitats, and compensation areas that shall remain undeveloped in perpetuity, except for allowed

activities pursuant to this chapter. Sensitive area management tracts are an integral part of the lot in which they are created, are not intended for sale, lease or transfer, and shall be included in the area of the parent lot for purposes of subdivision method and minimum lot size.

#### **SMP17.15.150 Protection of sensitive area management tracts**

- A. The Director shall require, as a condition of any permit issued pursuant to this chapter, that the sensitive area management tracts be protected and maintained in perpetuity by a sensitive area management easement which must be recorded with the Pierce County auditor prior to the commencement of any activity pursuant to the terms of the permit. In addition, an entity that will be responsible for the maintenance and protection of the sensitive area tract must be designated as part of the permit.

#### **SMP17.15.160 Marking of Habitat Areas during construction**

- A. The location of the outer extent of the habitat and the areas to be disturbed pursuant to an approved permit shall be marked in the field to prevent unnecessary disturbance by individuals and equipment during the development or construction of the permitted activity. Such field marking shall be approved by the Director prior to the commencement of permitted activities. Such field markings shall be maintained throughout the duration of the permit.

#### **SMP17.15.170 Permanent marking of management tract**

- A. The boundary of a sensitive area management tract must be permanently identified by signs, the location, size, and wording of which must be approved by the building official. These signs should be worded as follows:

**Protection of this natural habitat area is in your care.  
Alteration or disturbance is prohibited by law.  
Please call the City of Fife,  
Department of Community Development,  
for more information.**

#### **SMP17.15.180 Additional requirements**

- A. The Director may attach such additional conditions to the granting of a permit as deemed necessary to assure the preservation and protection of affected habitat and to assure compliance with the purposes and requirements of this chapter. These conditions include, but are not limited to fencing, educational signage, and other passive recreational amenities.

#### **SMP17.15.190 Deed restrictions**

- A. The permit holder shall establish and record a permanent and irrevocable deed restriction on the property title of all lots containing sensitive area management tracts created as a condition of this permit. Such deed restriction(s) shall prohibit in perpetuity the development,

alteration, or disturbance of vegetation within the sensitive area management tract except for allowed activities and regulated activities allowed by a permit issued pursuant to this chapter.

## **Chapter SMP17.17 WETLANDS**

SMP17.17.010	Policy, purpose and intent
SMP17.17.020	Definitions
SMP17.17.030	Abrogation and greater restrictions
SMP17.17.040	Interpretation
SMP17.17.050	Scope
SMP17.17.060	Applicability
SMP17.17.070	Maps and inventory
SMP17.17.080	Permit requirements – Compliance
SMP17.17.110	Permit information requirements
SMP17.17.150	Sensitive area management tracts
SMP17.17.160	Protection of sensitive area management tracts
SMP17.17.170	Temporary Marking during construction
SMP17.17.180	Permanent marking of management tract
SMP17.17.190	Additional requirements
SMP17.17.200	Deed restrictions
SMP17.17.210	Site analysis
SMP17.17.230	Wetland buffers
SMP17.17.240	Buffers in natural state
SMP17.17.260	Increased wetland buffer zone width
SMP17.17.280	Standard wetland buffer width averaging
SMP17.17.290	Permitted uses in a wetland buffer zone
SMP17.17.310	Limited density transfer
SMP17.17.320	Mitigation Sequencing
SMP17.17.330	Compensatory mitigation performance standards
SMP17.17.340	Compensatory mitigation wetland type
SMP17.17.350	Compensatory Mitigation Plan Elements
SMP17.17.360	Wetlands Mitigation Ratios
SMP17.17.370	Increased replacement ratio.
SMP17.17.380	Decreased replacement ratio.
SMP17.17.400	Timing of wetland compensatory mitigation
SMP17.17.410	Cooperative restoration, creation or enhancement projects
SMP17.17.430	Unauthorized Alterations and Enforcement

### **SMP17.17.010 Policy, purpose and intent**

- A. It is the policy of the City to require site planning to avoid or minimize damage to wetlands wherever possible; to require that activities not dependent upon a wetland location be located

at upland sites; to achieve no net loss of wetlands by requiring restoration or enhancement of degraded wetlands or creation of new wetlands to offset losses that are unavoidable. Identification of wetlands and delineation of their boundaries pursuant to this Chapter shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this chapter.

- B. The purposes of this chapter are to protect the public health, safety, and welfare by:
1. Regulating land use to avoid the adverse impacts of development within and adjacent to wetlands and to maintain the functions and values of wetlands within the shoreline jurisdiction throughout the City of Fife;
  2. Protecting the public against losses from:
    - a. Unnecessary maintenance and replacement of public facilities, including the dredging of ports and navigation channels;
    - b. Publicly funded mitigation of avoidable impacts; and
    - c. Cost for public emergency rescue and relief operations.
  3. Alerting appraisers, assessors, owners, and potential buyers or lessees to the development limitations of wetlands;
  4. Providing city officials with information to evaluate, approve, condition, or deny public or private development proposals;
  5. Implementing the policies of the Growth Management Act, the State Environmental Policy Act, RCW 43.21(C), City Comprehensive Plan, as updated, and all other present and future city environmental and community plans and programs; and
  6. Establishing review procedures for development proposals in and adjacent to wetlands within the shoreline jurisdiction.
  7. Recognizing and protecting the beneficial functions performed by many wetlands, which include, but are not limited to, providing food, breeding, nesting and/or rearing habitat for fish and wildlife; recharging and discharging ground water; contributing to stream and river flow during low flow periods; stabilizing stream/creek/river banks and shorelines; storing storm and flood waters to reduce flooding and erosion; and improving water quality through biofiltration, adsorption, and retention and transformation of sediments, nutrients and toxicants.

- C. It is the intent of the city that activity in or affecting wetlands shall not threaten public safety, cause nuisances, or destroy or degrade natural wetland functions and values by:
1. Impeding flood flows, reducing flood storage capacity, or impairing natural flood control functions, thereby resulting in increased flood heights, frequencies, or velocities on other lands;
  2. Increasing water pollution through location of domestic waste disposal systems in wetlands; unauthorized application of pesticides and herbicides; disposal of solid waste at inappropriate sites; creation of unstable fills; or the destruction of wetland soils and vegetation;
  3. Increasing erosion;
  4. Decreasing breeding, nesting, and feeding areas for many species of waterfowl and shorebirds, including those that are rare, endangered, threatened, or of local significance;
  5. Interfering with the exchange of nutrients needed by fish and other forms of wildlife;
  6. Decreasing habitat for fish and other forms of wildlife;
  7. Adversely altering the recharge or discharge functions of wetlands, thereby impacting groundwater or surface water supplies;
  8. Significantly altering wetland hydrology and thereby causing either short or long term changes in vegetation composition, soils characteristics, nutrient cycling, or water chemistry;
  9. Destroying sites needed for education and scientific research, such as outdoor biophysical laboratories, living classrooms, and training areas; or
  10. Destroying or damaging aesthetic and property values including significant public view sheds.

#### **SMP17.17.020 Definitions**

- A. “Alteration” for the purposes of this chapter, means any human-induced change in an existing condition of a wetland or its buffer. Alterations include, but are not limited to, grading, filling, channelizing, dredging, clearing of vegetation, construction, compaction, excavation, or any other activity that changes the character of the critical area.
- B. “Applicant” means an individual, partnership, corporation, association, organization, cooperative, public or municipal corporation, or agency of the state or local government unit, however designated.

- C. “Best Available Science” means current scientific information used to designate, protect, or restore critical areas, that is derived from a valid scientific process as defined by WAC 365-195-900 through 925. Examples of best available science are included in Citations of Recommended Sources of Best Available Science for Designating and Protecting Critical Areas published by the Washington State Department of Commerce
- D. “Best Management Practices” or “BMPs”, for the purposes of this chapter, means conservation practices or systems of practices and management measures that:
1. Control soil loss and reduce water quality degradation caused by high concentrations of nutrients, animal waste, toxics, or sediment;
  2. Minimize adverse impacts to surface water and ground water flow and circulation patterns and to the chemical, physical, and biological characteristics of wetlands;
  3. Protect trees, vegetation and soils designated to be retained during and following site construction and use native plant species appropriate to the site for re-vegetation of disturbed areas; and
  4. Provide standards for proper use of chemical herbicides within critical areas
- E. “Bog” means a low-nutrient, acidic wetland with organic soils and characteristic bog plants, which is sensitive to disturbance and impossible to re-create through compensatory mitigation.
- F. “Buffer” or “Buffer Zone” means the area contiguous with a critical area that maintains the functions and/or structural stability of the critical area.
- G. “Category I wetlands” Category I wetlands are: (1) relatively undisturbed estuarine wetlands larger than 1 acre; (2) wetlands that are identified by scientists of the Washington Natural Heritage Program/DNR as high-quality wetlands; (3) bogs larger than ½ acres; (4) mature and old-growth forested wetlands larger than 1 acres; (5) wetlands in coastal lagoons; and (6) wetlands that perform many functions well (e.g. those scoring 70 points or more on the rating form included in the *Washington State Wetland Rating System for Western Washington – Revised*. Washington State Department of Ecology Publication # 04-06-025, 2004). These wetlands: (1) represent unique or rare wetland types; (2) are more sensitive to disturbance than most wetlands; (3) are relatively undisturbed and contain ecological attributes that are impossible to replace in a human lifetime; or (4) provide a high level of function.
- H. “Category II wetlands” Category II wetlands are: (1) estuarine wetlands smaller than 1 acre, or disturbed estuarine wetlands larger than 1 acres; (2) wetlands identified by the Washington State Department of Natural Resources as containing “sensitive” plant

species; (3) bogs between ¼ and ½ acre; (4) interdunal wetlands larger than 1 acre; or (5) wetlands with a moderately high level of functions (scoring 51-69 points on the rating form included in the *Washington State Wetland Rating System for Western Washington – Revised*. Washington State Department of (Ecology Publication # 04-06-025, 2004).).

- I. “Category III wetlands” Category III wetlands are: (1) wetlands with a moderate level of functions (scoring between 30 and 50 points on the rating form included in the *Washington State Wetland Rating System for Western Washington – Revised*. Washington State Department of (Ecology Publication # 04-06-025, 2004); and (2) interdunal wetlands between 0.1 and 1 acre. Wetlands scoring between 30 and 50 points generally have been disturbed in some ways and are often less diverse or more isolated from other natural resources in the landscape than Category II wetlands.
- J. “Category IV wetlands” Category IV wetlands have the lowest level of functions (scoring less than 30 points on the rating form included in the *Washington State Wetland Rating System for Western Washington – Revised*. Washington State Department of (Ecology Publication # 04-06-025, 2004) and are often heavily disturbed.
- K. “Compensation project” means actions necessary to replace project-induced wetland and wetland buffer losses, including land acquisition, planning, construction plans, monitoring and contingency actions.
- L. “Compensatory mitigation” means replacing project induced wetland losses or impacts, and includes, but is not limited to, the following:
  - 1. Restoration. Actions performed to reestablish wetland functional characteristics and processes which have been lost by alterations, activities, or catastrophic events within an area where a wetland formerly existed, but which no longer meet the definition of a wetland.
  - 2. Creation. Actions performed to intentionally establish a wetland at a site where it did not formerly exist.
  - 3. Enhancement. Actions performed to improve the condition of existing degraded wetlands so that the functions they provide are of a higher quality.
- M. “Conservation easement” means a reservation or encumbrance on a particular piece of real property that precludes building improvement(s) intended for human habitation or other structures or activities that would frustrate the primary purpose of the easement as a buffer.

- N. “Critical Areas” includes any of the following areas or ecosystems: critical aquifer recharge areas, fish and wildlife habitat conservation areas, geologically hazardous areas, frequently flooded areas, and wetlands, as defined in RCW 36.70(A) and this Chapter.
- O. “Creation”, for the purposes of this chapter, means the manipulation of the physical, chemical, or biological characteristics to develop a wetland on an upland or deepwater site, where a wetland did not previously exist. Creation results in a gain in wetland acreage and function. A typical action is the excavation of upland soils to elevations that will produce a wetland hydroperiod and hydric soils, and support the growth of hydrophytic plant species.
- P. “Cumulative Impacts” or “Cumulative Effects” means the combined, incremental effects of human activity on ecological or critical area functions and values. Cumulative impacts result when the effects of an action are added to or interact with the effects of other actions in a particular place and within a particular time. It is the combination of these effects, and any resulting environmental degradation, that should be the focus of cumulative impact analysis and changes to policies and permitting decisions.
- Q. ”Developable Area” means a site or portion of a site that may be used as the location of development, in accordance with the rules of this Chapter.
- R. “Development” means a land use consisting of the construction or exterior alteration of structures; grading, dredging, drilling, or dumping; filling; removal of sand, gravel, or minerals; bulk heading; driving of pilings; placement of obstructions or any project of a temporary or permanent nature which modifies structures, land, or shorelines and which does not fall within the allowable exemptions contained in the Shoreline Master Program.
- S. “Development proposal” means all activity relating to the use and/or development of land requiring a permit or approval from the city, including, but not limited to: commercial or residential permit; franchise right-of-way permit; grading and clearing permit; mixed use approval; planned unit development; shoreline conditional use permit; shoreline substantial development permit; shoreline variance; short subdivision; special use permit; subdivision; flood hazard permit; unclassified use permit; utility and other use permit; variance; rezone; or any subsequently required permit or approval not expressly exempted by this chapter.
- T. “Enhancement” means the manipulation of the physical, chemical, or biological characteristics of a wetland to heighten, intensify, or improve specific 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 wetland function(s) and can lead to a decline in other wetland functions, but does not result in a gain in wetland

acres. Examples are planting vegetation, controlling non-native or invasive species, and modifying site elevations to alter hydroperiods.

- U. “Existing and on-going agriculture” includes those activities conducted on lands defined in RCW 84.34.020(2), and those activities involved in the production of crops or livestock, for example the operation and maintenance of farm and stock farms or drainage ditches, operation and maintenance of ditches, irrigation systems, irrigation laterals, canals, or irrigation drainage ditches, changes between agricultural activities, and normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Activities which bring an area into agricultural use are not part of an on-going operation. An operation ceases to be ongoing when the area on which it is conducted is converted to a nonagricultural use or has lain idle for more than five years, unless the idle land is registered in a federal or state soils conservation program, or unless the activity is maintenance of irrigation ditches, laterals, canals, or drainage ditches related to an existing and ongoing agricultural activity. Forest practices are not included in this definition.
- V. “Extraordinary hardship” means strict application of this chapter and/or programs adopted to implement this chapter by the city would prevent all reasonable use of the parcel.
- W. “Functions and Values”, for the purposes of this chapter, means the services provided by critical areas to society, including, but not limited to, improving and maintaining water quality, providing fish and wildlife habitat, supporting terrestrial and aquatic food chains, reducing flooding and erosive flows, wave attenuation, historical or archaeological importance, educational opportunities, and recreation.
- X. “Growth Management Act” means RCW 36.70A and 36.70B, as amended
- Y. “Hazardous Substances” means any liquid, solid, gas, or sludge, including any 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
- Z. “High intensity land use” includes land uses which are associated with moderate or high levels of human disturbance or substantial wetland impacts including, but not limited to, residential densities higher than four units per acre, multifamily residential, active recreation, and commercial and industrial land uses.
- AA. “Hydric soil” means a soil that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. .

- BB. “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 “federal manual for identifying and delineating jurisdictional wetlands”.
- CC. “Impervious Surface” means any alterations to the surface of a soil that prevents or retards the entry of water into it compared to its undisturbed condition, or any reductions in infiltration that cause water to run off the surface in greater quantities or at an increased rate of flow compared to that present prior to development. Common impervious surfaces include, but are not limited to, rooftops, 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 stormwater.
- DD. “In-kind compensation” means to replace wetlands with substitute wetlands whose characteristics and functions closely approximate those destroyed or degraded by a regulated activity. It does not mean replacement “in-category”.
- EE. “Isolated wetlands” means those regulated wetlands which:
1. Are outside of and not contiguous to any 100-year floodplain of a lake, river, or stream; and
  2. Have no contiguous hydric soil or hydrophytic vegetation between the wetland and any surface water, including other wetlands
- FF. “Low intensity land use” includes land uses which are associated with low levels of human disturbance or low wetland impacts, including, but not limited to, passive recreation, open space, or most types of agricultural or forest management land uses.
- GG. “Major structures and improvements” mean projects which require a threshold determination and environmental documentation under the city’s environmental policy act.
- HH. “Maps and inventory” means that series of maps maintained by the city department of community development for the purpose of graphically depicting the boundaries of wetland, and the associated report entitled, “wetland inventory, City of Fife” of October, 1991.
- II. “Mitigation” includes avoiding, minimizing or compensating for adverse impacts. Mitigation for individual actions may include a combination of measures. Mitigation, in the following order of preference, is:

1. Avoiding the impact altogether 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, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
3. Rectifying the impact to wetlands by repairing, rehabilitating or restoring the affected environment to the conditions existing at the time of the initiation of the project;
4. Minimizing or eliminating a hazard by restoring or stabilizing the hazard area through engineered or other methods;
5. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
6. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments;
6. Monitoring the impact and the compensation project and taking appropriate corrective measures as necessary.

Mitigation for individual actions may include a combination of the above measures.

- JJ. “Monitoring” means evaluating the impacts of development proposals on the biological, hydrological, and geological elements of such systems, and assessing the performance of required mitigation measures through the collection and analysis of data by various methods for the purpose of understanding and documenting changes in natural ecosystems and features. Monitoring includes gathering baseline data.
- KK. “Native vegetation” means plant species that naturally arise within a given habitat and are specific and localized to the particular region.
- LL. “Off-site compensation” means to replace wetlands away from the site on which a wetland has been impacted by a regulated activity.
- MM. “On-site compensation” means to replace wetlands at or adjacent to the site on which a wetland has been impacted by a regulated activity.
- NN. “Ordinary High Water Mark” or “OHWM” means 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 all ordinary years, that the soil has a character distinct from that of the abutting upland in respect to vegetation as that condition existed on June 1, 1971, as it may naturally change thereafter, or as it may change thereafter in accordance with permits issued by the City or the Washington State

Department of Ecology; provided that in any area where the ordinary high water mark cannot be found, the ordinary high water mark adjoining saltwater shall be the line of mean higher high tide and the ordinary high water mark adjoining freshwater shall be the line of mean high water. “Out-of-kind compensation” means to replace wetlands with substitute wetlands whose characteristics do not closely approximate those destroyed or degraded by a regulated activity. It does not refer to replacement “out-of-category”.

- OO. “Practicable alternative design” means an alternative project design that is reasonable and capable of being carried out after taking into consideration: cost, existing technology, and logistics in light of overall project purposes, and having less impact on wetlands. It includes, but is not limited to: reducing density, phasing of project development, changing the timing of activities, revision of road and utility and lot layout.
- PP. “Preservation” means the removal of a threat to, or preventing the decline of, wetland conditions by an action in or near a wetland. This term includes the purchase of land or easements, repairing water control structures or fences, or structural protection. Preservation does not result in a gain of wetland acres but may result in a gain in functions over the long term.
- QQ. “Project Area” means all areas, including those within fifty (50) feet of the area, proposed to be disturbed, altered, or used by the proposed activity or the construction of any proposed structures. When the action binds the land, such as a subdivision, short subdivision, binding site plan, planned unit development, or rezone, the project area shall include the entire parcel, at a minimum,
- RR. “Prior Converted Croplands” or “PCCs” are defined in federal law as wetlands that were drained, dredged, filled, leveled, or otherwise manipulated, including the removal of woody vegetation, before December 23, 1985, to enable production of an agricultural commodity, and that: 1) have had an agricultural commodity planted or produced at least once prior to December 23, 1985; 2) do not have standing water for more than 14 consecutive days during the growing season, and 3) have not since been abandoned.
- SS. “Qualified Professional” means a person with experience and training in the pertinent scientific discipline, and who is a qualified scientific expert with expertise appropriate for the relevant critical area subject in accordance with WAC 365-195-905. A qualified professional must have obtained a B.S. or B.A. or equivalent degree in biology, engineering, environmental studies, fisheries, geomorphology, or related field, and have at least five years of related work experience.

1. A qualified professional for wetlands must be a professional wetland scientist with at least two years of full-time work experience as a wetlands professional, including

delineating wetlands using the state or federal manuals, preparing wetlands reports, conducting function assessments, and developing and implementing mitigation plans.

2. A qualified professional for habitat must have a degree in biology or a related degree and professional experience related to the subject species.

3. A qualified professional for a geological hazard must be a professional engineer or geologist, licensed in the state of Washington.

4. A qualified professional for critical aquifer recharge areas means a hydrogeologist, geologist, engineer, or other scientist with experience in preparing hydrogeologic assessments.

TT. “Regulated activities” means any of the following activities which are directly undertaken or originate in a regulated wetland or its buffer:

1. The removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind;

2. The dumping, discharging, or filling with any material;

3. The draining, flooding, or disturbing of the water level or water table;

4. The driving of pilings;

5. The placing of obstructions;

6. The construction, reconstruction, demolition, or expansion of any structure;

7. The destruction or alteration of wetlands vegetation that would alter the character of a regulated wetland; provided, that these activities are not part of a forest practice governed under RCW 76.09 and its rules; or

8. Activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetland water sources, including quantity, or the introduction of pollutants.

UU. “Repair or maintenance” means an activity that restores the character, scope, size, and design of a serviceable area, structure, or land use to its previously authorized and undamaged condition. Activities that change the character, size, or scope of a project beyond the original design are not included in this definition.

VV. “Restoration” for the purposes of this chapter, means measures taken to restore an altered or damaged natural feature, including:

1. Active steps taken to restore damaged wetlands, streams, protected habitat, or their buffers to the functioning condition that existed prior to an unauthorized alteration; and
2. Actions performed to re-establish structural and functional characteristics of the critical area that have been lost by alteration, past management activities, or catastrophic events.

- WW. “Serviceable” means presently useable.
- XX. “Species, Endangered” means any wildlife species native to the state of Washington that is seriously threatened with extinction throughout all or a significant portion of its range within the state (WAC 232-12-297, Section 2.4).
- YY. “Species, Priority” means any fish or wildlife species requiring protective measures and/or management guidelines to ensure its persistence at genetically viable population levels as classified by the Washington Department of Fish and Wildlife, including endangered, threatened, sensitive, candidate, and monitor species, and those of recreational, commercial, or tribal importance.
- ZZ. “Species, Threatened” means any wildlife species native to the state of Washington that is likely to become an endangered species within the foreseeable future throughout a significant portion of its range within the state without cooperative management or removal of threats (WAC 232-12-297, Section 2.5).
- AAA. “Species, Sensitive” means any wildlife species native to the state of Washington that is vulnerable or declining and is likely to become endangered or threatened throughout a significant portion of its range within the state without cooperative management or removal of threats (WAC 232-12-297, Section 2.6).
- BBB. “Unavoidable impacts” are impacts to regulated wetlands that remain after all practicable avoidance and minimization has been achieved.
- CCC. "Wetland" or "wetlands" means areas that are inundated or saturated by surface water or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands. When required, wetlands shall be categorized utilizing the *Washington State Wetland Rating System for Western*

*Washington – Revised.* Washington State Department of (Ecology Publication # 04-06-025, 2004).

DDD. “Wetland edge” means the boundary of a wetland as delineated based on the definitions contained in this chapter.

**SMP17.17.030 Abrogation and greater restrictions**

A. It is not intended that this chapter repeal, abrogate, or impair any existing regulations, easements, covenants, or deed restrictions. However, where this chapter provides more protection to wetlands, the provisions of this chapter shall prevail unless specifically provided otherwise in this chapter.

**SMP17.17.040 Interpretation**

A. The provisions of this chapter shall be held to be minimum requirements in their interpretation and application and shall be liberally construed to serve policies, goals and purposes of this chapter.

**SMP17.17.050 Scope**

A. The city shall not grant any approval or permission to conduct a regulated activity in a wetland unless the activity is in compliance with this chapter and with the City of Fife Shoreline Master Program.

**SMP17.17.060 Applicability**

A. For the purposes of this chapter, regulated activities in wetlands or its buffer include: the removal, excavation, grading, or dredging of soil, sand, gravel, minerals, organic matter, or material of any kind; dumping, discharging, or filling with any material; draining, flooding, or disturbing of the water level or water table; driving of pilings; placing of water obstructions; construction, reconstruction, demolition, or expansion of any structure; destruction or alteration of wetlands vegetation through clearing, harvesting, shading, intentional burning, or planting of vegetation that would alter the character of a wetland; provided, that these activities are not part of a forest practice governed under RCW 76.09 and its rules, or otherwise permitted by this chapter; activities that result in a significant change of water temperature, a significant change of physical or chemical characteristics of wetlands water sources, including quantity, timing or the introduction of pollutants.

B. Subdivisions. The subdivision and/or short subdivision of land in wetlands and associated buffers are subject to the following:

1. Land that is wholly within a wetland or its buffer may not be subdivided through this process.
  2. Land that is partially within a wetland or its buffer may be subdivided provided that an accessible and contiguous portion of each new lot is located outside the wetland buffer and meets the minimum lot size requirements of the underlying zoning density.
- C. Isolated Category III and IV wetlands less than 1,000 square feet in size that are not associated with riparian areas or buffers, are not part of a wetland mosaic, and do not contain habitat identified as essential for local populations of priority species as identified by the Washington State Department of Fish and Wildlife or a species of local importance are exempt from buffer provisions and the normal mitigation sequencing process. These wetlands may be filled if approval is granted from all relevant local, state and federal agencies and impacts can be fully mitigated based on the provisions of this chapter.
- D. The following uses shall be allowed within a wetland to the extent that the uses are not prohibited by any other chapter or law and provided they are conducted using best management practices, except where such activities result in the conversion of a wetland to a use to which it was not previously subjected:
1. Conservation or preservation of soil, water, vegetation, fish, shellfish, and other wildlife including activities undertaken for purposes of habitat enhancement that is part of an enhancement project which has received prior written approval from the city and any other agency with jurisdiction over such activity;
  2. Outdoor recreational activities, including hunting, fishing, bird watching, hiking, boating, horseback riding, swimming, canoeing, and bicycling. The development of horseback riding, hiking, and bicycling trails shall not be considered an allowed activity;
  3. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, or alteration of the wetland by changing existing topography, water conditions or water sources. Commercial harvesting of wild crops shall not be considered an allowed use;
  4. Existing and ongoing agricultural activities including farming, horticulture, aquaculture, irrigation, ranching or grazing of animals. Activities on areas lying fallow, as part of a conventional rotational cycle, are part of an ongoing operation. Activities which bring an area into agricultural use are not part of an ongoing operation. An operation ceases to be ongoing when the area on which it was conducted has been converted to another use or has lain idle so long that modifications to the hydrological regime are necessary to resume operations;
  5. The maintenance of drainage ditches;

6. Education, scientific research, and use of nature trails;
7. Site investigative work necessary for land use application submittals such as surveys, soil logs, percolation tests and other related activities. In every case, impacts shall be minimized and disturbed areas shall be immediately restored;
8. Emergency repair or construction activities, or vegetation harvesting (mowing) that the city determines to be necessary to protect the health, safety, or welfare of area residents; and
9. Normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Maintenance and repair does not include any modification that changes the character, scope, or size of the original structure, facility, or improved area and does not include the construction of a maintenance road.
10. Drilling for utilities/utility corridors under a wetland, with entrance/exit portals located completely outside of the wetland buffer, provided that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column will be disturbed.

#### **SMP17.17.070 Maps and inventory**

- A. The approximate location and extent of wetlands in the city are shown on adopted critical area maps, including city maps and National Wetlands Inventory maps. Additionally, soil maps produced by the United States Department of Agriculture Natural Resources Conservation Service may be used to help identify potential wetland areas. These maps are to be used as a guide for the city, project applicants, and/or property owners, and shall be continuously updated as new critical areas are identified. They are a reference and do not provide a final critical area designation. The exact location of a wetland's boundary shall be determined through the performance of a field investigation by a qualified professional applying the latest edition of the Washington State Wetlands Identification and Delineation Manual as required by RCW 36.70A.175.

#### **SMP17.17.080 Permit requirements – Compliance**

- A. Except as specifically provided by this chapter, no regulated activity shall occur or be permitted to occur within a wetland without a written permit from the Director. Any alteration approved by such written permit shall comply fully with the requirements and purposes of this chapter, other applicable regulations, and any terms or conditions of said permit. All activities that are not allowed or permitted shall be prohibited.

### **SMP17.17.110 Permit information requirements**

In addition to the submittal requirements required for Shoreline permit documents, the following items will be required for shoreline permit applications with associated wetlands.

A. A description of the project, including the following information:

1. The purposes of the project and an explanation why the proposed activity cannot be located at other sites including an explanation of how the proposed activity is dependent upon wetlands;
2. A description of the vegetative cover of the critical area and adjacent area including dominant species;

B. Associated maps and figure sheets of the project area, including:

1. A map scaled no smaller than one inch equals 400 feet showing the entire parcel of land owned by the applicant
2. All wetlands and recommended buffers within the project area as well as 300 feet of the project area
3. All shoreline areas, water features, floodplains and other critical areas and related buffers within 300 feet of the project area;
4. The location, width, depth and length of all existing and proposed structures, roads, sewage treatment, and installations within and adjacent to wetlands
5. Elevations of the site and adjacent lands within the wetlands at contour intervals of no greater than two feet;
6. The exact sites and specifications for all regulated activities including the amounts and methods;
7. Typical cross-section views of the wetlands to scale;

C. A study of flood, erosion, or other hazards at the site and the effect of any protective measures that might be taken to reduce such hazards;

D. Wetland Critical Area Report. If the Director determines that the site of a proposed development includes, is likely to include, or is adjacent to a wetland, a wetland report, prepared by a qualified professional, shall be required. The expense of preparing the wetland report shall be borne by the applicant. The wetland critical area report shall contain the following:

1. The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the wetland critical area report; a description of the proposal; identification of all the local, state, and/or federal wetland-related permit(s) required for the project; and a vicinity map for the project.
2. A statement specifying the accuracy of the report and all assumptions made and relied upon.
3. Documentation of any fieldwork performed on the site, including field data sheets for delineations, rating system forms, baseline hydrologic data, etc.
4. A description of the methodologies used to conduct the wetland delineations, rating system forms, or impact analyses including references.
5. Identification and characterization of all critical areas, wetlands, water bodies, shorelines, floodplains, and buffers on or adjacent to the proposed project area. The exact location of the wetland and critical area boundaries within the parcel and/or project boundaries shall be determined by a qualified professional through the performance of a field investigation applying the wetland definitions contained in this chapter. For areas off site of the project site, estimate conditions within 300 feet of the project boundaries using the best available information.

a. Identification of wetlands and delineation of their boundaries pursuant to this Chapter shall be done in accordance with the approved federal wetland delineation manual and applicable regional supplements. All areas within the City meeting the wetland designation criteria in that procedure are hereby designated critical areas and are subject to the provisions of this Chapter. Wetland delineations are valid for five years; after such date the City shall determine whether a revision or additional assessment is necessary.

b. Wetlands shall be rated according to the Washington Department of Ecology wetland rating system, as set forth in the Washington State Wetland Rating System for Western Washington (Ecology Publication #04-06-025, or as revised and approved by Ecology).

6. For each wetland identified on site and within 300 feet of the project site provide: the wetland rating, including a description of and score for each function, required buffers; hydrogeomorphic classification; wetland acreage based on a professional survey from the field delineation (acres for on-site portion and entire wetland area including off-site portions); Cowardin classification of vegetation communities; habitat elements; soil conditions based on site assessment and/or soil survey information; and to the extent possible, hydrologic information such as location and condition of inlet/outlets (if they can be legally accessed), estimated water depths

within the wetland, and estimated hydroperiod patterns based on visual cues (e.g., algal mats, drift lines, flood debris, etc.). Provide acreage estimates, classifications, and ratings based on entire wetland complexes, not only the portion present on the proposed project site.

7. A description of the proposed actions, including an estimation of acreages of impacts to wetlands and buffers based on the field delineation and survey and an analysis of site development alternatives, including a no-development alternative.
8. An assessment of the probable cumulative impacts to the wetlands and buffers resulting from the proposed development.
9. A description of reasonable efforts made to apply mitigation sequencing to avoid, minimize, and mitigate impacts to critical areas.
10. A discussion of measures, including avoidance, minimization, and compensation, proposed to preserve existing wetlands and restore any wetlands that were degraded prior to the current proposed land-use activity.
11. A conservation strategy for habitat and native vegetation that addresses methods to protect and enhance on-site habitat and wetland functions.
12. An evaluation of the functions of the wetland and adjacent buffer.
13. Include reference for the method used and data sheets.
14. A copy of the site plan sheet(s) for the project must be included with the written report and must include, at a minimum: Maps (to scale) depicting delineated and surveyed wetland and required buffers on site, including buffers for off-site critical areas that extend onto the project site; the development proposal; other critical areas; grading and clearing limits; areas of proposed impacts to wetlands and/or buffers (include square footage estimates) and a depiction of the proposed stormwater management facilities and outlets (to scale) for the development, including estimated areas of intrusion into the buffers of any critical areas. The written report shall contain a discussion of the potential impacts to the wetland(s) associated with anticipated hydroperiod alterations from the project.

J. Mitigation plan, which includes baseline information, environmental goals and objectives, performance standards, detailed construction plans, a monitoring program, and a contingency plan as described in 17.17.350.

#### **SMP17.17.150 Sensitive area management tracts**

- A. As a condition of any permit issued pursuant to this chapter, the permit holder shall be required to create a separate sensitive area management tract containing the areas determined to be wetlands. Sensitive area management tracts are legally created tracts containing wetlands, and compensation areas that shall remain undeveloped in perpetuity, except for allowed activities pursuant to this chapter. Sensitive area management tracts are an integral part of the lot in which they are created, are not intended for sale, lease or transfer, and shall be included in the area of the parent lot for purposes of subdivision method and minimum lot size.

**SMP17.17.160 Protection of sensitive area management tracts**

- A. The Director shall require, as a condition of any permit issued pursuant to this chapter, that the sensitive area management tracts be protected and maintained in perpetuity by a sensitive area management easement which must be recorded with the Pierce County auditor prior to the commencement of any activity pursuant to the terms of the permit. In addition, an entity that will be responsible for the maintenance and protection of the sensitive area tract must be designated as part of the permit.

**SMP17.17.170 Temporary Marking during construction**

- A. The location of the outer extent of the wetland and the areas to be disturbed pursuant to an approved permit shall be marked in the field to prevent unnecessary disturbance by individuals and equipment during the development or construction of the permitted activity. Such field marking shall be approved by the Director prior to the commencement of permitted activities. Such field markings shall be maintained throughout the duration of the permit until such time a permanent signs are in place.

**SMP17.17.180 Permanent marking of management tract**

- A. The boundary of a sensitive area management tract must be permanently identified by signs, the location, size, and wording of which must be approved by the building official. These signs should be worded as follows:

**Protection of this natural wetland area is in your care.  
Alteration or disturbance is prohibited by law.  
Please call the City of Fife,  
Department of Community Development,  
for more information.**

- B. Permanent signs shall be made of an enamel-coated metal face and attached to a metal post of another non-treated material of equal durability.

- C. Signs shall be posted at an interval of one (1) per lot or every fifty (50) feet, whichever is less, and shall be maintained by the property owner in perpetuity.
- D. The applicant shall be required to install a permanent fence around the wetland or buffer when domestic grazing animals are present or may be introduced on site.
- E. Fencing installed as part of a proposed activity or as required in this subsection shall be designed so as to not interfere with species migration, including fish runs, and shall be constructed in a manner that minimizes impacts to the wetland and associated habitat.

#### **SMP17.17.190 Additional requirements**

A. The Director may attach such additional conditions to the granting of a permit as deemed necessary to assure the preservation and protection of affected wetland and to assure compliance with the purposes and requirements of this chapter. These conditions include, but are not limited to, fencing, educational signage, and other passive recreational amenities.

#### **SMP17.17.200 Deed restrictions**

A. The permit holder shall establish and record a permanent and irrevocable deed restriction on the property title of all lots containing sensitive area management tracts created as a condition of this permit. Such deed restriction(s) shall prohibit in perpetuity the development, alteration, or disturbance of vegetation within the sensitive area management tract except for allowed activities and regulated activities allowed by a permit issued pursuant to this chapter.

#### **SMP17.17.210 Site analysis**

- A. Where the applicant has provided a delineation of the wetland boundary, the Director shall verify the accuracy of, and may render adjustments to, the boundary delineation. In the event the adjusted boundary delineation is contested by the applicant, the Director shall, at the applicant's expense, obtain expert services to render a final delineation.
- B. The Director, when requested by the applicant, may waive the delineation of the boundary requirement for the applicant and, in lieu of delineation by the applicant, perform the delineation. The Director shall consult with qualified professional scientists and technical experts or other experts as needed to perform the delineation. The applicant shall be charged for the costs incurred as part of his permit application fee.
- C. Where the Director performs a wetland delineation at the request of the applicant, such delineation shall be considered a final determination.

D. Illegal modifications. Wetland rating categories shall not change due to illegal modifications made by the applicant or with the applicant’s knowledge.

**SMP17.17.230 Wetland Buffers**

A. Buffer Requirements. The standard buffer widths in Table 1 have been established in accordance with the best available science. They are based on the category of wetland and the habitat score as determined by a qualified wetland professional using the Washington state wetland rating system for western Washington.

1. The use of the standard buffer widths requires the implementation of the measures in Table 1, where applicable, to minimize the impacts of the adjacent land uses.
2. If an applicant chooses not to apply the mitigation measures in Table 2, then a 33% increase in the width of all buffers is required. For example, a 75-foot buffer with the mitigation measures would be a 100-foot buffer without them.
3. The standard buffer widths assume that the buffer is vegetated with a native plant community appropriate for the ecoregion. If the existing buffer is not vegetated, sparsely vegetated, or vegetated with invasive species that do not perform needed functions, the buffer should either be planted to create the appropriate plant community or the buffer should be widened to ensure that adequate functions of the buffer are provided.
4. Additional buffer widths are added to the standard buffer widths. For example, a Category I wetland scoring 32 points for habitat function would require a buffer of 225 feet (75 + 150).
5. Buffer Mitigation Ratios. Impacts to buffers shall be mitigated at a 1:1 ratio. Compensatory buffer mitigation shall replace those buffer functions lost from development.

**SMP17.17 Table 1: Wetland Buffer Requirements for Western Washington**

Wetland Category	Standard Buffer Width	Additional Buffer width if wetland scores 21-25 habitat points	Additional Buffer width if wetland scores 26-29 habitat points	Additional Buffer width if wetland scores 30-36 habitat points
Category I: Based on Total Score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Bogs	190 ft	N/A	N/A	Add 35 ft

Wetland Category	Standard Buffer Width	Additional Buffer width if wetland scores 21-25 habitat points	Additional Buffer width if wetland scores 26-29 habitat points	Additional Buffer width if wetland scores 30-36 habitat points
Category I: Natural Heritage Wetlands	190 ft	N/A	N/A	Add 35 ft
Category I: Coastal Lagoons	150 ft	N/A	Add 15 ft	Add 75 ft
Category I: Forested	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category I: Estuarine	150 ft	N/A	N/A	N/A
Category II: Based on Score	75 ft	Add 30 ft	Add 90 ft	Add 150 ft
Category II: Interdunal	110 ft	N/A	Add 55 ft	Add 115 ft
Category III (all)	60 ft	Add 45 ft	Add 105 ft	N/A
Category IV (all)	40 ft	N/A	N/A	N/A

**SMP17.17 Table 2: Required measures to minimize impacts to wetlands\***

Disturbance	Required Measures to mitigate impacts
Lights	Direct lights away from wetlands
Noise	Locate activities that generate noise away from the wetland.  If warranted, enhance existing buffer with native vegetation planting adjacent to noise source

	<p>For activities that generate relatively continuous, potentially disruptive noise, such as heavy industry or mining, establish an additional 10' of heavily vegetated buffer strip immediately adjacent to the wetland buffer. Other sound reduction techniques and methodologies, as available, may also be considered in lieu of the additional 10' heavily vegetated buffer but may not limit habitat connectivity and must be as effective as the 10' buffer in reducing noise impacts.</p>
Toxic runoff	<p>New, untreated runoff shall be directed away from wetland while ensuring wetland is not dewatered.</p> <p>Establish covenants limiting the use of pesticides within 150 feet of the wetland.</p> <p>Apply integrated pest management.</p>
Stormwater runoff	<p>Retrofit stormwater detention and treatment for roads and existing adjacent development.</p> <p>Prevent channelized flow from lawns that directly enters the buffer.</p> <p>Use Low Intensity Development techniques (per PSAT publication on LID techniques)</p>
Change in water regime	<p>Infiltrate or treat, detain, and disperse into buffer new runoff from impervious surfaces and new lawns.</p>
Pets and human disturbance	<p>Use privacy fencing or plant dense vegetation to delineate buffer edge and to discourage disturbance using vegetation appropriate to the ecoregion</p>
Dust	<p>Use best management practices to control dust.</p>
Disruptions of corridors or connections.	<p>Maintain existing connections to off-site areas</p>

	that are undisturbed.
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\*if applicable to a specific proposal.

B. All buffers shall be measured perpendicular from the wetland boundary as surveyed in the field. Lawns, walkways, driveways, and other mowed or paved areas will not be considered buffers and shall not be included in buffer calculations.

C. Created, enhanced, and restored wetlands shall have buffers consistent with the requirements of this chapter.

D. If buffers for two contiguous critical areas overlap (e.g. the shoreline and wetland buffer), the wider buffer applies.

**SMP17.17.240 Buffers in natural state**

A. Wetland buffer zones shall be retained in their natural condition. Where buffer disturbance is unavoidable during adjacent construction, re-vegetation will be required with native plant materials required.

**SMP17.17.260 Increased wetland buffer zone width**

The Director shall require increased standard buffer zone widths on a case by case basis when a larger buffer is necessary to protect wetlands functions and values based on local conditions. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions and values of the regulated wetland. Such determination shall be attached as a permit condition and shall demonstrate that:

A. The wetland is used by species proposed or listed by the federal government or the state as endangered, threatened, rare, sensitive or monitor, critical or outstanding potential habitat for those species or has unusual nesting or resting sites such as heron rookeries or raptor nesting trees; or

B. The adjacent land is susceptible to severe erosion and erosion control measures will not effectively prevent adverse wetland impacts; or

C. The adjacent land has minimal vegetative cover or slopes greater than 30 percent.

**SMP17.17.280 Standard wetland buffer width averaging**

A. To improve wetland protection, standard wetland buffer zones may be modified by averaging buffer widths. Wetland buffer width averaging shall be allowed only where the applicant demonstrates all of the following:

1. The wetland has significant differences in characteristics that affect its habitat functions, such as a wetland with a forested component adjacent to a degraded emergent component or a “dual-rated” wetland with a Category I area adjacent to a lower rated area.
2. The buffer is increased adjacent to the higher-functioning area of habitat or more-sensitive portion of the wetland and decreased adjacent to the lower-functioning or less-sensitive portion as demonstrated by a report from a qualified wetland professional.
3. That width averaging will not adversely impact the wetland functional values; and
4. That the total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging. In no instance shall the buffer width be reduced by more than 25 percent of the standard buffer or be less than 35 feet.

B. Averaging to allow reasonable use of a parcel may be permitted when all the following are met:

1. There are no feasible alternatives to the site design that could be accomplished without buffer averaging.
2. The averaged buffer will not result in degradation of the wetland’s functions and values as demonstrated by a critical area report from a qualified wetland professional.
3. That the total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging. In no instance shall the buffer width be reduced by more than 25 percent of the standard buffer or be less than 35 feet.

**SMP17.17.290 Permitted uses in a wetland buffer zone**

A. Regulated activities shall not be allowed in a buffer zone except for the following:

1. Conservation and restoration activities aimed at protecting the soil, water, vegetation or wildlife.
2. Educational and scientific research activities.
3. Passive recreation. Passive recreation facilities designed and in accordance with an approved critical area report, including:
  - a. New walkways and trails provided that those pathways are limited to minor crossings having no adverse impact on water quality. They should be generally parallel to the perimeter of the wetland, located only in the outer twenty-five percent (25%) of the wetland buffer area, and located to avoid removal of significant trees. They should be limited to pervious surfaces no more than five

(5) feet in width for pedestrian use only. Raised boardwalks utilizing non-treated pilings may be acceptable.

b. Wildlife-viewing structures

4. Normal and routine maintenance and repair of any existing public or private facilities within an existing right-of-way, provided that the maintenance or repair does not increase the footprint or use of the facility or right-of-way.

5. The harvesting of wild crops in a manner that is not injurious to natural reproduction of such crops and provided the harvesting does not require tilling of soil, planting of crops, chemical applications, or alteration of the wetland by changing existing topography, water conditions, or water sources.

6. Drilling for utilities/utility corridors under a buffer, with entrance/exit portals located completely outside of the wetland buffer boundary, provided that the drilling does not interrupt the ground water connection to the wetland or percolation of surface water down through the soil column. Specific studies by a hydrologist are necessary to determine whether the ground water connection to the wetland or percolation of surface water down through the soil column is disturbed.

7. Enhancement of a wetland buffer through the removal of non-native invasive plant species. Removal of invasive plant species shall be restricted to hand removal. All removed plant material shall be taken away from the site and appropriately disposed of. Plants that appear on the Washington State Noxious Weed Control Board list of noxious weeds must be handled and disposed of according to a noxious weed control plan appropriate to that species. Revegetation with appropriate native species at natural densities is allowed in conjunction with removal of invasive plant species

8. Stormwater management facilities. Stormwater management facilities are limited to stormwater dispersion outfalls and bioswales. They may be allowed within the outer twenty-five percent (25%) of the buffer of Category III or IV wetlands only, provided that:

a. No other location is feasible; and

b. The location of such facilities will not degrade the functions or values of the wetland; and

c. Stormwater management facilities are not allowed in buffers of Category I or II wetlands.

9. Non-Conforming Uses. Repair and maintenance of non-conforming uses or structures, where legally established within the buffer, provided they do not increase the degree of nonconformity.

B. The Director may impose such conditions on the above referenced uses as is necessary to protect the integrity of the wetland and to fulfill the policies purposes, and further the goals set forth in this chapter.

**SMP17.17.310 Limited density transfer**

A. For development proposals on lands containing wetland buffers, the Director shall determine allowable dwelling units for residential development proposals based on the formulas below.

B. The following formula for density calculations is designed to provide incentives for the preservation of wetlands and wetland buffers, flexibility in design, and consistent treatment of different types of development proposals. The formula shall apply to all properties within existing residential zones on which wetlands and wetland buffers are located.

C. The maximum number of dwelling units (DU) for a lot or parcel which contains wetlands and wetland buffers shall be equal to:

$$(\text{Acres in Wetland Buffer}) \times (\text{DU/Acre}) \times (\text{Density Credit})$$

The density credit figure is derived from the following table:

**SMP17.17 Table 3: Density Credit Derivation Table**

Percentage of the site in Buffers	Density Credit
1-10%	100%
11-20%	90%
21-30%	80%
31-40%	70%
41-50%	60%
51-60%	50%
61-70%	40%
71-80%	30%
81-90%	20%

90-99	10%
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D. The density credit can only be transferred within the development proposal site. To the extent that application of the formula may result in lot sizes less than the minimum allowed by the underlying district, they are hereby authorized; provided, that the resultant lot is of sufficient size for an on-site waste disposal system if no sanitary sewer system exists.

E. The Director shall not allow credit for density for the portions of the site occupied by wetlands.

**SMP17.17.320 Mitigation sequencing**

A. Before impacting any wetland or its buffer, an applicant shall demonstrate that the following actions have been taken. Actions are listed in the order of preference:

1. Avoid the impact altogether by not taking a certain action or parts of an action.
2. Minimize impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts.
3. Rectify the impact by repairing, rehabilitating, or restoring the affected environment.
4. Reduce or eliminate the impact over time by preservation and maintenance operations.
5. Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.
6. Monitor the required compensation and take remedial or corrective measures when necessary.

B. As a condition of any permit allowing alteration of wetlands and/or wetland buffers, or as an enforcement action pursuant to FMC 17.05.100, the Director shall require that the applicant engage in the restoration, creation or enhancement of wetlands and their buffers in order to offset the impacts resulting from the applicant’s actions. The applicant shall develop a plan that provides for land acquisition (if necessary), construction, maintenance and monitoring of replacement wetlands that provides equal or greater functions and values as the original wetlands. The overall goal of any compensatory project shall be no net loss of wetland functions and values and to strive for a net resource gain in wetland functions and values over present conditions. Compensation should be completed prior to wetland alteration, where possible.

**SMP17.17.330 Compensatory mitigation performance standards**

A. Requirements for Compensatory Mitigation:

1. Compensatory mitigation for alterations to wetlands shall be used only for impacts that cannot be avoided or minimized and shall achieve equivalent or greater biologic functions. Compensatory mitigation plans shall be consistent with Wetland Mitigation in Washington State – Part 2: Developing Mitigation Plans (Version 1), Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised.
2. Mitigation ratios shall be consistent with this Chapter.
3. Mitigation requirements may also be determined using the credit/debit tool described in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft” (Ecology Publication #10-06-011, February 2011, or as revised) consistent with subsection H of this Chapter.

B. Compensating for Lost or Affected Functions. Compensatory mitigation shall address the functions affected by the proposed project, with an intention to achieve functional equivalency or improvement of functions. The goal shall be for the compensatory mitigation to provide similar wetland functions as those lost, except when either:

1. The lost wetland provides minimal functions, and the proposed compensatory mitigation action(s) will provide equal or greater functions or will provide functions shown to be limiting within a watershed through a formal Washington state watershed assessment plan or protocol; or
2. Out-of-kind replacement of wetland type or functions will best meet watershed goals formally identified by the City, such as replacement of historically diminished wetland types.

C. Preference of Mitigation Actions. Methods to achieve compensation for wetland functions shall be approached in the following order of preference:

1. Restoration (re-establishment and rehabilitation) of wetlands.
2. Creation (establishment) of wetlands on disturbed upland sites such as those with vegetative cover consisting primarily of non-native species.

This should be attempted only when there is an adequate source of water and it can be shown that the surface and subsurface hydrologic regime is conducive to the wetland community that is anticipated in the design.

3. Enhancement of significantly degraded wetlands in combination with restoration or creation. Enhancement alone will result in a loss of wetland acreage and is less effective

at replacing the functions lost. Enhancement should be part of a mitigation package that includes replacing the impacted area and meeting appropriate ratio requirements.

4. Preservation. Preservation of high-quality, at-risk wetlands as compensation is generally acceptable when done in combination with restoration, creation, or enhancement, provided that a minimum of 1:1 acreage replacement is provided by re-establishment or creation.

Preservation of high-quality, at risk wetlands and habitat may be considered as the sole means of compensation for wetland impacts when the following criteria are met:

- a. Wetland impacts will not have a significant adverse impact on habitat for listed fish, or other ESA listed species.
- b. There is no net loss of habitat functions within the watershed or basin.
- c. Mitigation ratios for preservation as the sole means of mitigation shall generally start at 20:1. Specific ratios should depend upon the significance of the preservation project and the quality of the wetland resources lost.
- d. The impact area is small (generally <1/2acre) and/or impacts are occurring to a low-functioning system (Category III or IV wetland).
- e. All preservation sites shall include buffer areas adequate to protect the habitat and its functions from encroachment and degradation.

D. Given the uncertainties in scientific knowledge and the need for expertise and monitoring, wetland compensatory projects may be permitted only when the Director finds that the compensation project is associated with an activity or development otherwise permitted and that the restored, created, or enhanced wetland will be as persistent as the wetland it replaces. Additionally, applicants shall:

1. Demonstrate sufficient scientific expertise, supervisory capability, and financial resources to carry out the proposed mitigation project;
2. Demonstrate the capability for monitoring the site and to make corrections during the monitoring period if the project fails to meet projected goals; and
3. Protect and manage or provide for the protection and management of the compensation area to avoid further development or degradation and to provide for long term persistence of the compensation area.

E. Wetland functions and values shall be calculated using the best professional judgment of a qualified wetland ecologist using the best available techniques.

### **SMP17.17.340 Compensatory mitigation wetland type**

A. In-kind compensation shall be provided except where the applicant can demonstrate that:

1. The hydrology and ecosystem of the original wetland and those who benefit from the hydrology and ecosystem will not be significantly adversely impacted by the on-site loss; and
2. The wetland system is already significantly degraded and out-of-kind replacement will result in a wetland with greater functional value; or
3. Scientific problems such as exotic vegetation and changes in watershed hydrology make implementation of in-kind compensation impossible; or
4. Out-of-kind replacement will best meet identified regional goals (e.g., replacement of historically diminished wetland types).
5. On-site compensation is not scientifically feasible due to problems with hydrology, soils, waves, or other factors; or
6. Compensation is not practical due to potentially adverse impact from surrounding land uses; or
7. That local or regional goals for flood storage, flood conveyance, habitat or other wetland functions have been established and strongly justify location of compensatory measures at another site.

B. Where out-of-kind replacement is accepted, greater acreage replacement ratios may be required to compensate for lost functional values. Off-site compensation shall occur within the same watershed as the wetland loss occurred; provided, that Category IV wetlands may be replaced outside of the watershed when there is no reasonable alternative and local or regional environmental goals are furthered by this action.

In selecting compensation sites, applicants shall pursue siting in the following order of preference:

1. Degraded wetland sites;
2. Upland sites which were formerly wetlands;
3. Upland sites generally having bare ground or vegetative cover consisting primarily of exotic introduced species, weeds, or emergent vegetation;
4. Other disturbed upland sites.

C. Wetland Mitigation Banks.

1. Credits from a wetland mitigation bank may be approved for use as compensation for unavoidable impacts to wetlands when:

- a. The bank is certified under state rules;
- b. The Director determines that the wetland mitigation bank provides appropriate compensation for the authorized impacts; and
- c. The proposed use of credits is consistent with the terms and conditions of the bank's certification.

2. Replacement ratios for projects using bank credits shall be consistent with replacement ratios specified in the bank's certification.

3. Credits from a certified wetland mitigation bank may be used to compensate for impacts located within the service area specified in the bank's certification. In some cases, the service area of the bank may include portions of more than one adjacent drainage basin for specific wetland functions.

D. In-Lieu Fee. To aid in the implementation of off-site mitigation, the City may develop a program which prioritizes wetland areas for use as mitigation and/or allows payment in lieu of providing mitigation on a development site. This program shall be developed and approved through a public process and be consistent with state and federal rules. The program should address:

1. The identification of sites within the City that are suitable for use as offsite mitigation. Site suitability shall take into account wetland functions, potential for wetland degradation, and potential for urban growth and service expansion, and
2. The use of fees for mitigation on available sites that have been identified as suitable and prioritized.

E. Advance Mitigation. Mitigation for projects with pre-identified impacts to wetlands may be constructed in advance of the impacts if the mitigation is implemented according to state and federal rules.

F. Alternative Mitigation Plans. The Director may approve alternative critical areas mitigation plans that are based on best available science, such as priority restoration plans that achieve restoration goals identified in the SMP. Alternative mitigation proposals must provide an equivalent or better level of protection of critical area functions and values than would be provided by the strict application of this chapter.

The Director shall consider the following for approval of an alternative mitigation proposal:

1. The proposal uses a watershed approach consistent with *Selecting Wetland Mitigation Sites Using a Watershed Approach* (Ecology Publication #09-06-32, Olympia, WA, December 2009.)
2. Creation or enhancement of a larger system of natural areas and open space is preferable to the preservation of many individual habitat areas;
3. Mitigation according to Section E is not feasible due to site constraints such as parcel size, stream type, wetland category, or geologic hazards;
4. There is clear potential for success of the proposed mitigation at the proposed mitigation site;
5. The plan shall contain clear and measurable standards for achieving compliance with the specific provisions of the plan. A monitoring plan shall, at a minimum, meet the provisions in Section I;
6. The plan shall be reviewed and approved as part of overall approval of the proposed use;
7. A wetland of a different type is justified based on regional needs or functions and values; the replacement ratios may not be reduced or eliminated unless the reduction results in a preferred environmental alternative;
8. Mitigation guarantees shall meet the minimum requirements as outlined in this code.
9. Qualified professionals in each of the critical areas addressed shall prepare the plan;
10. The City may consult with agencies with expertise and jurisdiction over the resources during the review to assist with analysis and identification of appropriate performance measures that adequately safeguard critical areas.

#### **SMP17.17.350 Compensatory Mitigation Plan Elements**

When a project involves wetland and/or buffer impacts, a compensatory mitigation plan prepared by a qualified professional shall be required, meeting the following minimum standards:

- A. **Wetland Critical Area Report.** A critical area report for wetlands must accompany or be included in the compensatory mitigation plan and include the minimum parameters described in Minimum Standards for Wetland Reports 17.17.110(D) of this Chapter.
- B. **Compensatory Mitigation Report.** The report must include a written report and plan sheets that must contain, at a minimum, the following elements. Full guidance can be found in

Wetland Mitigation in Washington State—Part 2: Developing Mitigation Plans (Version 1) (Ecology Publication #06-06-011b, Olympia, WA, March 2006 or as revised). The written report must contain, at a minimum:

1. The name and contact information of the applicant; the name, qualifications, and contact information for the primary author(s) of the compensatory mitigation report; a description of the proposal; a summary of the impacts and proposed compensation concept; identification of all the local, state, and/or federal wetland-related permit(s) required for the project; and a vicinity map for the project.
2. Description of how the project design has been modified to avoid, minimize, or reduce adverse impacts to wetlands.
3. Description of the existing wetland and buffer areas proposed to be impacted. Include acreage (or square footage), water regime, vegetation, soils, landscape position, surrounding lands uses, and functions. Also describe impacts in terms of acreage by Cowardin classification, hydrogeomorphic classification, and wetland rating, based on Wetland Ratings as defined within this Chapter.
4. Description of the compensatory mitigation site, including location and rationale for selection and compensation goals. Include an assessment of existing conditions: acreage (or square footage) of wetlands and uplands, water regime, sources of water, vegetation, soils, landscape position, surrounding land uses, and functions. Estimate future conditions in this location if the compensation actions are NOT undertaken (i.e., how would this site progress through natural succession?).
5. A description of the proposed actions for compensation of wetland and buffer areas affected by the project. Include overall goals of the proposed mitigation, including a description of the targeted functions, hydrogeomorphic classification, and categories of wetlands.
6. Detailed Construction Plans. Written specifications and descriptions of compensation techniques shall be provided including the proposed construction sequence, grading and excavation details, erosion and sediment control features needed for wetland construction and long term survival, a planting plan specifying plant species, quantities, locations, size, spacing, and density; source of plant materials, propagules, or seeds; water and nutrient requirements for planting; where appropriate, measures to protect plants from predation; specification of substrate stockpiling techniques and planting instructions; descriptions of water control structures and water-level maintenance practices needed to achieve the necessary hydrocycle/hydroperiod characteristics; etc. These written specifications shall be accompanied by detailed site diagrams, scaled 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. The plan shall provide for elevations which are appropriate for the desired habitat type(s).

7. A description of the proposed mitigation construction activities and timing of activities.
8. A review of the available literature and/or experience to date in restoring or creating the type of wetland proposed shall be provided. An analysis of the likelihood of success of the compensation project at duplicating the original wetland shall be provided based on the experiences of comparable projects, if any. An analysis of the likelihood of persistence of the created or restored wetland shall be provided based on such factors as surface and groundwater supply and flow patterns, dynamics of the wetland ecosystem; sediment or pollutant influx and/or erosion, periodic flooding and drought, etc., presence of invasive flora or fauna, potential human or animal disturbance, and previous comparable projects, if any.
9. A discussion of ongoing management practices that will protect wetlands after the project site has been developed, including proposed monitoring and maintenance programs (for remaining wetlands and compensatory mitigation wetlands).
10. A bond estimate for the entire compensatory mitigation project, including the following elements: site preparation, plant materials, construction materials, installation oversight, maintenance twice per year for up to five (5) years, annual monitoring field work and reporting, and contingency actions for a maximum of the total required number of years for monitoring.
11. Proof of establishment of Notice on Title for the wetlands and buffers on the project site, including the compensatory mitigation areas.
12. Scaled plan sheets for the compensatory mitigation. These plans must contain, at a minimum:
  - a. Surveyed edges of the existing wetland and buffers, proposed areas of wetland and/or buffer impacts, location of proposed wetland and/or buffer compensation actions.
  - b. Existing topography, ground-proofed, at two-foot contour intervals in the zone of the proposed compensation actions if any grading activity is proposed to create the compensation area(s), existing cross-sections of on-site wetland areas that are proposed to be impacted, and cross-section(s) (estimated one foot intervals) for the proposed areas of wetland or buffer compensation.
  - c. Surface and subsurface hydrologic conditions, including an analysis of existing and proposed hydrologic regimes for enhanced, created, or restored compensatory

mitigation areas. Also, illustrations of how data for existing hydrologic conditions were used to determine the estimates of future hydrologic conditions.

- d. Conditions expected from the proposed actions on site, including future hydrogeomorphic types, vegetation community types by dominant species (wetland and upland), and future water regimes.
  - e. Required wetland buffers for existing wetlands and proposed compensation areas. Also, identify any zones where buffers are proposed to be reduced or enlarged outside of the standards identified in this Chapter.
  - f. A plant schedule for the compensation area, including all species by proposed community type and water regime, size and type of plant material to be installed, spacing of plants, typical clustering patterns, total number of each species by community type, timing of installation.
  - g. Performance standards Specific criteria shall be provided for evaluating whether or not the goals and objectives of the project and for beginning remedial action or contingency measures. 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. Monitoring. Mitigation monitoring shall be required for a period necessary to establish that performance standards have been met, but not for a period less than five years. If a scrub-shrub or forested vegetation community is proposed, monitoring may be required for ten years or more. The project mitigation plan shall include monitoring elements that ensure certainty of success for the project's natural resource values and functions. If the mitigation goals are not obtained within the initial five-year period, the applicant remains responsible for restoration of the natural resource values and functions until the mitigation goals agreed to in the mitigation plan are achieved.
1. Monitoring may include, but is not limited to:
    - a. Establishing vegetation plots to track changes in plant species composition and density over time;
    - b. Using photo stations to evaluate vegetation community response;
    - c. Sampling surface and subsurface waters to determine pollutant loading, and changes from the natural variability of background conditions (pH, nutrients, heavy metals);
    - d. Measuring base flow rates and storm water runoff to model and evaluate water quality predictions, if appropriate;

- e. Measuring sedimentation rates, if applicable; and
  - f. Sampling fish and wildlife populations to determine habitat utilization, species abundance and diversity.
2. A protocol shall be included outlining how the monitoring data will be evaluated by agencies that are tracking the progress of the compensation project. A monitoring report shall be submitted annually, at a minimum, documenting milestones, successes, problems, and contingency actions of the compensation project. The compensation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than five years.
- D. 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.

**SMP17.17.360 Wetlands Mitigation Ratios**

- A. Any person proposing to alter wetlands may propose to create wetlands of equivalent areas or greater functions and values than those altered in order to compensate for wetland losses.
- B. Where feasible, created wetlands should be a higher category than the altered wetland.
- C. Acreage Replacement Ratio. The following ratios apply to creation which is in kind, on-site, timed prior to or concurrent with alteration, and has a high probability of success. These ratios do not apply to remedial actions resulting from illegal alterations. The first number specifies the acreage of wetlands requiring replacement and the second specifies the acreage of wetlands altered:

**SMP17.17 Table 4: Wetland Mitigation Ratios**

Category and Type of Wetland	Creation or Re-establishment	Rehabilitation	Enhancement	Preservation
Category I: Bog, Natural Heritage Site	Not considered possible	6:1	Case by Case	10:1
Category I: Mature Forested	6:1	12:1	24:1	24:1
Category I: Based on	4:1	8:1	16:1	20:1

Function				
Category II	3:1	6:1	12:1	20:1
Category III	2:1	4:1	8:1	15:1
Category IV	1.5:1	3:1	6:1	10:1

H. Credit/Debit Method. To more fully protect functions and values, and as an alternative to the mitigation ratios found in the joint guidance “Wetland Mitigation in Washington State Parts I and II”(Ecology Publication #06-06-011a-b, Olympia, WA, March, 2006), the Director may allow mitigation based on the “credit/debit” method developed by the Department of Ecology in “Calculating Credits and Debits for Compensatory Mitigation in Wetlands of Western Washington: Operational Draft,”(Ecology Publication #10-06-011, Olympia, WA, February 2011, or as revised).(Ord. 1116 § 37, 1992).

**SMP17.17.370 Increased Wetland Mitigation ratios**

- A. The Director may increase the ratios for wetland enhancement, restoration, or creation projects under the following circumstances:
1. Uncertainty as to the probable success of the proposed enhancement, restoration or creation; or
  2. Significant period of time between destruction and replacement of wetland functions and values; or
  3. Projected losses in functional value; or
  4. Off-site compensation.

**SMP17.17.380 Decreased wetland mitigation ratios**

- A. The Director may decrease the required as identified in SMP17.17.360 ratios if all of the following items apply:
1. Findings of special studies coordinated with agencies with expertise demonstrate that no net loss of wetland function or value is attained under the decreased ratio;
  2. If a compensatory mitigation project is undertaken adjacent to riverine or wetland systems and increases the functions and values of these systems; and

3. If compensatory mitigation successfully occurs in advance of the proposed wetland altering activity.

#### **SMP17.17.400 Timing of wetland compensatory mitigation**

- A. Where feasible, compensatory projects should be completed prior to activities that will disturb wetlands, and immediately after activities that will temporarily disturb wetlands.
- B. In all other cases, compensatory projects should be completed prior to use or occupancy of the activity or development which was conditioned upon such compensation.
- C. Construction of compensation projects shall be timed to reduce impacts to existing wildlife and flora.
- D. The Director may authorize a one-time temporary delay in completing construction or installation of the compensatory mitigation when the applicant provides a written explanation from a qualified wetland professional as to the rationale for the delay. An appropriate rationale would include identification of the environmental conditions that could produce a high probability of failure or significant construction difficulties (e.g., project delay lapses past a fisheries window, or installing plants should be delayed until the dormant season to ensure greater survival of installed materials). The delay shall not create or perpetuate hazardous conditions or environmental damage or degradation, and the delay shall not be injurious to the health, safety, or general welfare of the public. The request for the temporary delay must include a written justification that documents the environmental constraints that preclude implementation of the compensatory mitigation plan. The justification must be verified and approved by the City.

#### **SMP17.17.410 Cooperative restoration, creation or enhancement projects**

- A. The Director may encourage, facilitate, and approve cooperative projects wherein a single applicant or other organization with demonstrated capability may undertake a compensation project with funding from other applicants under the following circumstances:
  1. Restoration, creation, or enhancement at a particular site may be scientifically difficult or impossible; or
  2. Creation of one or several larger wetlands may be preferable to many small wetlands.
- B. Persons proposing cooperative compensation projects shall:

1. Submit a joint mitigation plan;
2. Demonstrate compliance with all standards;
3. Demonstrate the organizational and fiscal capability to act cooperatively; and
4. Demonstrate that long term management can and will be provided.

#### **SMP17.17.430 Unauthorized Alterations and Enforcement**

- A. When a wetland or its buffer has been altered in violation of this Chapter, all ongoing development work shall stop, and the critical area shall be restored.
- B. Requirement for Restoration Plan. All development work shall remain stopped until a restoration plan is prepared and approved by the City. Such a plan shall be prepared by a qualified professional using the currently accepted scientific principles and shall describe how the actions proposed meet the minimum requirements described in Subsection (C). The Director shall, at the violator's expense, seek expert advice in determining the adequacy of the plan. Inadequate plans shall be returned to the applicant or violator for revision and re-submittal.
- C. Minimum Performance Standards for Restoration. The following minimum performance standards shall be met for the restoration of a wetland, provided that if the violator can demonstrate that greater functions and habitat values can be obtained, these standards may be modified:
  1. The historic structure, functions, and values of the affected wetland shall be restored, including water quality and habitat functions.
  2. The historic soil types and configuration shall be restored to the extent practicable.
  3. The wetland and buffers shall be replanted with native vegetation that replicates the vegetation historically found on the site in species types, sizes, and densities. The historic functions and values should be replicated at the location of the alteration.
  4. Information demonstrating compliance with other applicable provisions of this Chapter shall be submitted to the Director.
- D. Site Investigations. The Director is authorized to make site inspections and take such actions as are necessary to enforce this Chapter. The Director shall present proper credentials and make a reasonable effort to contact any property owner before entering onto private property.
- E. Penalties. Any person, party, firm, corporation, or other legal entity convicted of violating any of the provisions of this Chapter shall be guilty of a misdemeanor.

1. Each day or portion of a day during which a violation of this Chapter is committed or continued shall constitute a separate offense. Any development carried out contrary to the provisions of this Chapter shall constitute a public nuisance and may be enjoined as provided by the statutes of the state of Washington. The City may levy civil penalties against any person, party, firm, corporation, or other legal entity for violation of any of the provisions of this Chapter. The civil penalty shall be assessed at a maximum rate of \$100 dollars per day per violation for each of the first five days that a violation exists and of \$500.00 for each subsequent day of violation from the sixth day of the violation.
2. If the wetland affected cannot be restored, monies collected as penalties shall be deposited in a dedicated account for the preservation or restoration of landscape processes and functions in the watershed in which the affected wetland is located. The City may coordinate its preservation or restoration activities with other cities in the watershed to optimize the effectiveness of the restoration action.