

**Chapter 17A.XX
GENERAL PROVISIONS**

[Note to Reader: The general requirements below will apply in all critical areas. The text below will eventually reside in a general provisions section alongside other subsections such as purpose, applicability, etc.]

We are still reviewing Commerce's sample code as well as general provision sections from other Counties to decide how best to organize the General Provisions section for Kittitas County Title 17A. In the meantime, the text below regarding reporting requirements, mitigation and protective measures will help to inform your review of the flood and critical aquifer protection regulations on the pages that follow.]

17A.XX.XX Critical Areas Report Requirements

1. **When Required.** When required in accordance with Section 17A.XX.XX, the applicant shall submit a critical areas report.
2. **Preparation by Qualified Professional.** The critical areas report shall be prepared by a qualified professional as defined in Chapter 17A.XX.
3. **Incorporation of Best Available Science.** The critical areas report shall use scientifically valid methods and studies in the analysis of critical area data and field reconnaissance to evaluate the proposal and all probable impacts to critical areas in accordance with the provisions of this Title. The report shall reference the source(s) of science used.
4. **Minimum Report Contents.** At a minimum, the report shall contain the following:
 - a. The name and contact information of the applicant and a description of the proposal;
 - b. The site plan for the development proposal, including a map drawn to scale depicting critical areas, buffers, the development proposal, and any areas to be cleared or altered;
 - c. The names and qualifications of the persons preparing the report;
 - d. Documentation of any fieldwork performed on the site;
 - e. Identification and characterization of all critical areas and buffers on and adjacent to the proposed development;
 - f. A statement specifying the accuracy of the report, and all assumptions made and relied upon;
 - g. A discussion of the performance standards applicable to the critical area and proposed activity;
 - h. A mitigation plan in accordance with Section 17A.XX.XX if mitigation is required; and
 - i. Any additional report information required for the critical area as specified in Sections 17A.XX.XX through 17A.XX.XX.

17A.XX.XX General Mitigation Requirements

1. **Mitigation Sequence.** All development proposals shall demonstrate that all reasonable efforts have been made to avoid and minimize impacts to critical areas. When an

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alteration to a critical area is proposed, such alteration shall be avoided, minimized, or compensated for in the following order of preference (referred to as the mitigation sequence):

- a. Avoiding the impact altogether by not taking a certain action or parts of an action;
 - b. Minimizing impacts by limiting the degree or magnitude of the action and its implementation, by using appropriate technology, or by taking affirmative steps, such as project redesign, relocation, or timing, to avoid or reduce impacts;
 - c. Rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
 - d. Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action;
 - e. Compensating for the impact by replacing, enhancing, or providing substitute resources or environments; and
 - f. Monitoring the impact and taking appropriate corrective measures. *[Sources: Commerce's sample code / BAS report pages 3-20, 5-13, and 6-13. A mitigation sequencing requirement is included in all recent CAOs, and is also a requirement under many state and federal laws, including the Clean Water Act]*
2. **Mitigation Plans.** When mitigation is required, the applicant shall submit a mitigation plan. The mitigation plan shall include all of the following:
- a. **Mitigation Sequencing.** A description of reasonable efforts made to apply mitigation sequencing pursuant to Section 17A.XX.XX to avoid, minimize, and mitigate impacts to critical areas;
 - b. **Mitigation Details.** The mitigation plan shall include:
 - i. A description of the anticipated impacts to the critical area, including impacts to critical area functions and values;
 - ii. The mitigating actions proposed, including: type of mitigation proposed (e.g., on-site or off-site); site selection criteria; identification of compensation goals; and identification of critical area functions.
 - iii. The environmental goals and objectives of the mitigation, together with measurable specific measurable criteria and performance standards for evaluating whether or not the goals and objectives of the mitigation project have been successfully attained;
 - iv. A review of the best available science supporting the proposed mitigation; and
 - v. An analysis of the likelihood of success of the mitigation project.
 - c. **Construction Details.** The mitigation plan shall include written specifications, descriptions, and drawings of the mitigation proposed, including:
 - i. Construction sequence, timing, and duration;
 - ii. Grading and excavation details;
 - iii. Erosion and sediment control features; and
 - iv. Planting plan specifying plant species, quantities, locations, size, spacing, density, and measures to protect and maintain plants until established.
 - d. **Monitoring Details.** The mitigation plan shall include:
 - i. A program for monitoring construction and assessing the outcome of the mitigation project, including the schedule for site monitoring (for

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example, monitoring shall occur in year 1, 3, and 5 after site construction), and how the monitoring data will be evaluated to determine if the performance standards are being met. Monitoring reports shall be submitted to document milestones, successes, problems, and contingency actions of the compensation project. The mitigation project shall be monitored for a period necessary to establish that performance standards have been met, but not for a period less than five (5) years.

- ii. A contingency plan with courses of action and corrective measures to be taken if monitoring or evaluation indicates project performance standards are not being met.
- iii. The mitigation plan shall include financial guarantees ensuring fulfillment of the compensation project, monitoring program, and any contingency measures in accordance with Section 17A.XX.
- iv. The mitigation plan shall address any additional mitigation requirements relevant to the specific critical area as specified in the following chapters.
[Source: Commerce's sample code. General reporting requirements such as these are included in most, if not all, CAOs]

3. Financial Guarantees.

- a. When mitigation is required pursuant to a development proposal is not completed prior to the County's final permit approval, such as final plat approval or final building inspection, the applicant shall post a financial guarantee to ensure work will be completed and meet the stated environmental objectives. Where financial guarantees are required by other state or federal agencies for specific mitigation features, additional financial guarantees for those features are not required under this provision.
- b. The financial guarantee shall be in the amount of one hundred and twenty-five percent (125%) of the estimated cost of the uncompleted actions and/or the estimated cost of restoring the functions and values of the critical area(s) that is at risk.
- c. The financial guarantee may be in the form of a surety bond, performance bond, assignment of savings account, an irrevocable letter of credit guaranteed by an acceptable financial institution, or other form acceptable to the Director, with terms and conditions acceptable to the Kittitas County attorney.
- d. The financial guarantee shall remain in effect until the Director determines, in writing, that the standards bonded for have been met. Financial guarantees for wetland or stream compensatory mitigation shall be held for a minimum of five (5) years after completion of the work to ensure that the required mitigation has been fully implemented and demonstrated to function, and may be held for longer periods when necessary.
- e. Public development proposals shall be relieved from having to comply with the bonding requirements of this Section if public funds have previously been committed for mitigation, maintenance, monitoring, or restoration.
- f. Any failure to satisfy critical area requirements established by law or condition, including but not limited to the failure to provide a monitoring report within thirty (30) days after it is due or comply with other provisions of an approved mitigation plan, shall constitute a default, and the Director may demand payment

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of any financial guarantees or require other action authorized by Kittitas County code or any other law.

- g. Any funds recovered pursuant to this Section shall be used to complete the required mitigation. Such funds shall not be deposited in the County General Fund, but rather provided with a separate account. The County will use such funds to arrange for completion of the project or mitigation, and follow-up corrective actions.
 - h. Depletion, failure, or collection of financial guarantees shall not discharge the obligation of an applicant or violator to complete required mitigation, maintenance, monitoring, or restoration. *[Sources: Commerce's sample code. Mitigation financial guarantee provisions are included in most, if not all, CAOs]*
4. **Mitigation Banking and In-Lieu Fee (ILF) Mitigation.** The County may approve mitigation banking and/or ILF mitigation as a form of compensatory mitigation for wetland and habitat conservation area impacts when the provisions of this Title require mitigation and when the use of a mitigation bank/ILF program will provide equivalent or greater replacement of critical area functions and values when compared to conventional permittee-responsible mitigation. Banks and ILF program shall only be used when they provide significant ecological benefits including long-term conservation of critical areas, important species, habitats and/or habitat linkages, and when they are consistent with the County comprehensive plan and create a viable alternative to the piecemeal mitigation for individual projects impacts to achieve ecosystem-based conservation goals. Banks and ILF programs shall be established and certified in accordance with applicable federal and state mitigation rules. *[Source: BAS report page 5-29. This Section allows proponents to use off-site mitigation programs, if/when they become available in the County. These programs offer flexibility to applicants, as well as improved mitigation outcomes.]*

17A.XX.XX General Critical Areas Protective Measures

1. **Land Division.** Land division in critical areas and/or buffers shall meet all of the following conditions:
 - a. All lots within the land division shall contain at least one (1) site, including access and utility locations, that is suitable for use or development and is not located entirely within a wetland, aquatic habitat conservation area, frequently flooded area, channel migration zone, or landslide hazard area.
 - b. New lots may be created in a seismic hazard area as long as there is a note on the face of the plat or other recorded document which indicates the presence of a potential hazard.
 - c. Open space or conservation area lots may be established without a site that is suitable for use or development provided there is a note on the face of the plat or other recorded document which indicates the purpose of the lot. *[Source: BAS report page 3-18. Similar land division provisions are included in most, if not all, recent CAOs]*
2. **Native Growth Protection Areas.**
 - a. Native growth protection areas shall be used in development proposals for land division to protect those contiguous critical areas and buffers listed below that total less than five thousand (5,000) square feet:

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- i. All landslide hazard areas and buffers;
 - ii. All wetlands and buffers;
 - iii. All habitat conservation areas; and
 - iv. All other lands to be protected from alterations as conditioned by project approval.
 - b. Native growth protection areas shall be recorded on all documents of title of record for all affected lots.
 - c. Native growth protect areas shall be designated on the face of the plat or recorded drawing in a format approved by the County attorney. The designation shall include the following restrictions:
 - i. 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 and erosion, maintaining slope stability, buffering, and protecting plans, fish, and animal habitat; and
 - ii. The right of the County to enforce the terms of the restriction. *[Source: Commerce's sample code. Native growth protection area requirements are included in most, if not all, recent CAOs]*
3. **Critical Area Tracts.**
 - a. Critical area tracts shall be used in development proposals for land division to delineate and protect those contiguous critical areas and buffers listed below that total five thousand (5,000) or more square feet:
 - i. All landslide hazard areas and buffers;
 - ii. All wetlands and buffers;
 - iii. All habitat conservation areas; and
 - iv. All other lands to be protected from alterations as conditioned by project approval.
 - b. Critical area tracts shall be recorded on all documents of title of record for all affected lots.
 - c. Critical area tracts shall be designated on the face of the plat or recorded drawing in a format approved by the County attorney. 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 and erosion, maintaining slope stability, buffering, and protecting plans, fish, and animal habitat. The designation shall also include the right of the County to enforce the terms of the restriction.
 - d. The County may require that any required critical area tract be dedicated to the County, held in an undivided interest by each owner of a building lot within the development with the ownership interest passing with the ownership of the lot, or held by an incorporated homeowner's association or other legal entity (such as a land trust, which ensures the ownership, maintenance, and protection of the tract). *[Source: Commerce's sample code. This regulation is similar to above, but lists specific criteria for land divisions, or when a site has a large coverage of critical area(s)]*
4. **Temporary or Permanent Field Identification.** Prior to use or development within or adjacent to a critical area, the County may require temporary or permanent field markers delineating the critical area boundary and associated buffer. The type of field markers to

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be used will be agreed to by the project proponent and the Director depending on site conditions and inspection requirements. Field markers shall be spaced at a minimum of every fifty (50) feet, unless alternative placement or spacing is authorized by the Director. The location of field stakes must be shown on all site plans and final plats associated with the development proposal. Field markers shall remain in place until any required final inspections are completed and approved. Field markers may be waived by the Director if an alternative to field staking achieves the same objective, or if the development and construction activity(s) is located at a sufficient distance so that impacts to the critical area are unlikely to occur. The Director may require permanent fencing and/or signage if necessary to protect a critical area and its buffer from adjacent land uses. *[New. The purpose is to protect critical areas during project construction, and to allow the County to conduct critical area inspections]*

5. **Request for Technical Assistance.** The Director may engage technical consultants to review and interpret critical area data and findings submitted by or on behalf of the proponent, in instances where County staff lack the resources or expertise to review these materials. A project proponent may be required to pay for or reimburse the County for the review costs incurred. *[New. This gives the County authority to hire third-party reviewers for development proposals that the County does not have the staff, resources, or expertise to review.]*
6. **Pre-Qualification of Consultants.** The Director shall prepare and maintain a list of qualified technical consultants and firms that meet the qualified professional standards detailed in Section 17A.XX. Any proposed consultant whose name is not on the list may submit a statement of qualifications including information on experience in the preparation of critical area studies. Upon approval of the submitted qualifications, the Director shall add the name to the list of qualified consultants. The Director may reject data and findings from non-pre-qualified consultants or require a third party review per Section 17A.XX. *[New. This is helpful to both the County and applicants, to make sure critical area consultants are qualified and do quality work]*
7. **Building Setbacks.** Unless otherwise provided, buildings and other structures shall be set back a distance of fifteen (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 is allowed in the building setback area:
 - a. Landscaping;
 - b. Uncovered decks;
 - c. Building overhangs, if such overhangs do not extend more than eighteen (18) inches into the setback area; and
 - d. Impervious ground surfaces, such as driveways and patios. *[Source: Commerce sample code. This setback area is generally considered large enough to allow room for general maintenance of a structure without impacting buffer. A 15' setback in common in most, if not all, CAOs]*
8. **Notice on Title.** Any property on which a development proposal is submitted shall have filed with the Kittitas County Auditor:
 - a. A notice on title of the presence and location of critical areas and/or their buffers;
 - b. A statement as to the applicability of this Title to the property; and
 - c. A statement describing possible limitations on actions in or affecting critical areas or buffers as approved by the Director. The County shall record such

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documents and will provide a copy of the recorded notice to the property owner of record. Development proposals which are defined as normal repair and maintenance of existing structures or development, including, but not limited to, roof repair, interior remodeling, wood stove permits, and on-site sewage disposal systems repairs, are exempt from this requirement. *[Source: Commerce sample code. This provision is standard in most, if not all, CAOs. The intent is to inform future property owners of development limitations that may be present]*

**Chapter 17A.06
FREQUENTLY FLOODED AREAS**

Sections:

17A.06.05	Purpose of Chapter
17A.06.10	Designation and Mapping
17A.06.15	Protection Standards
17A.06.20	Reporting—Additional Requirements for Frequently Flooded Areas
17A.06.25	Compensatory Mitigation Requirements

17A.06.05 Purpose of Chapter

1. It is the purpose of this Chapter to reduce the risk to life, property damage, and public facilities that result from floods, and to protect fish and wildlife habitats that occur within frequently flooded areas. *[Source: BAS report page 3-16]*

17A.06.10 Designation and Mapping

1. **Areas Identified on the Flood Insurance Map(s).** All lands classified as floodway or special flood hazard areas in the Federal Emergency Management Agency report titled “The Flood Insurance Study for the County of Kittitas County” dated November 5, 1980, as now or hereafter amended, with accompanying Flood Insurance Rates and Boundary Maps, are designated as frequently flooded areas. The study and maps are on file at Kittitas County. *[KCC 14.08.030 / WAC 365-190-030(8)]*
2. **Other Areas.** The Flood Insurance Study maps may not show all potential flood hazard areas that may be necessary for a specific site analysis. The Director may make interpretations, where needed, as to the approximate location of the boundaries of frequently flooded areas based upon the following criteria:
 - a. Documented history of flood damage;
 - b. Evidence of stream channel instability and susceptibility to erosion; and/or
 - c. Maps showing future build-out conditions. *[New. Some areas of the County experience flooding events that are not depicted on the FEMA maps; this regulation allows the Director flexibility to help protect floodplains, people, and property in these areas]*
3. **Interpretation of Frequently Flooded Area Boundaries.** Frequently flooded area mapping interpretations made by the Director may be appealed pursuant to Section 14.08.160.

17A.06.15 Protection Standards

1. **Flood Damage Prevention.** New uses and developments within frequently flooded areas shall comply with Chapter 14.08 (Flood Damage Prevention). *[New. The Flood Damage Prevention ordinance details floodplain construction methods, etc. that the County must enforce in order to participate in the National Flood Insurance Program]*

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2. **Avoidance.** New structures shall be located outside of frequently flooded areas, when possible. *[Source: BAS report, page 3-19. This regulation is also consistent with the mitigation sequencing requirement described above]*
3. **Alluvial Fan Hazards.** The risks from alluvial fan flood hazards should be considered for proposed uses and developments. *[Source: BAS report page 3-17. The County has alluvial fan areas (such as Manastash Creek) that regularly experience destructive flooding events. The CAC may wish to refine this regulation to provide additional clarity and guidance for applicants about what is required in these areas.]*
4. **Floodplain Storage.** New uses or developments shall not reduce the effective flood storage volume within a frequently flooded area. If proposed grading, fill, or other activity would reduce effective flood storage volume, then mitigation per Section 17A.06.25 is required. *[Source: BAS report page 3-21. The intent is to mitigate for floodplain development, so that a downstream increase in flood risk does not result. The CAC may wish to refine this regulation to provide clarity and guidance for applicants about when mitigation would be required]*

17A.06.20 Reporting—Additional Requirements for Frequently Flooded Areas

1. **Reporting.** The Director’s approval of a new use or development within a frequently flooded area shall be contingent upon reporting that meets the requirements of Sections 14.08.110 through 14.08.130, the general critical area report requirements of Section 17A.XX.XX, and the following:
 - a. The nature, location, dimensions, and elevations of the project property;
 - b. Names and location of all lakes, waterbodies, streams, and drainage facilities within 300 feet of the site;
 - c. The proposed drainage system including, but not limited to, storm sewers, overland flow paths, detention facilities, and roads;
 - d. Existing and proposed structures, fill, pavement, and other impervious surfaces, and locations for storage of hazardous materials;
 - e. Existing native vegetation and proposed clearing limits; and
 - f. If the development proposal involves grading, excavation, or filling, include proposed post-development terrain at one foot contour intervals. *[BAS report page 3-17. These are standard floodplain reporting requirements that are found in most, if not all, CAOs]*

17A.06.25 Compensatory Mitigation Requirements

1. **Floodplain Storage.** New uses or developments shall not reduce the effective flood storage volume within a frequently flooded area. If proposed grading, fill, or other activity would reduce effective flood storage volume, then compensatory storage is required. Compensatory storage shall comply with Section 14.08.315 and the following:
 - a. Provide equivalent volume at equivalent elevations to that being displaced. For this purpose, “equivalent elevation” means having similar relationship to ordinary high water and to the best available ten (10)-year, fifty (50)-year, and one hundred (100)-year water surface profiles;
 - b. Provide flood storage that is hydrologically connected to the source of flooding;
 - c. Provide flood storage in an area that is vegetated;

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- d. Consider the existing and future ecological hydrologic functions of the impact and mitigation sites;
 - e. Result in no net rise of flood elevations (when the mitigation will occur at a distance from the fill location);
 - f. Provide flood storage in the same construction season as when the displacement of flood storage volume occurs and before the flood season begins; and
 - g. If the newly created storage area is accessible to fish during flood events, the area shall be designed, graded, and maintained to prevent fish stranding.
2. **Floodplain Storage Site Selection.** The order of preference for selecting floodplain storage sites shall be:
- a. Onsite flood storage;
 - b. Off-site flood storage in close proximity upstream or downstream of the floodplain fill location; and
 - c. Off-site flood storage in a location further upstream or downstream of the floodplain fill location.
3. **Floodplain Storage Mitigation Plans.** Floodplain storage mitigation plans shall be prepared by an engineer licensed in the state of Washington and address the general mitigation plan requirements of Section 17A.XX.XX, as well as the following:
- a. Potential that materials may be swept during flooding onto other lands to the detriment of others;
 - b. Actual danger to life and property if flooding or erosion occurs;
 - c. Susceptibility of the proposed development and its contents to flood damage;
 - d. Availability of alternative locations for the proposed use which are not subject to flood or erosion damage;
 - e. Relationship of the proposed use to any comprehensive flood hazard managements plans adopted pursuant to RCW Chapter 86.12;
 - f. Safety of access to the property in times of flooding for ordinary and emergency vehicles;
 - g. Expected heights, velocity, duration, rate or rise, and sediment transport of the flood waters and the effects of wave action at the site;
 - h. Costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities;
 - i. Location and extent of storage area for floodwater which will be displaced by the proposed development; and
 - j. The risk of public and provide property and public health, safety, and welfare due to rising of water levels, shifting of stream channels (including related erosion) as well as costs to individuals and the general public for items which are not insured such as loss of productivity due to closed roads, risk to emergency response workers, loss of uninsured property (cars, landscaping, etc.) and habitat damage as a result of loss of riparian zones and floodplain function. *[Source: BAS report, pages 3-20 to 23. A review of the BAS shows that compensatory floodplain storage is necessary to maintain floodplain functions and values. The CAC may wish to refine these provisions to provide clarity and guidance to applicants]*

Chapter 17A.09
CRITICAL AQUIFER RECHARGE AREAS (CARAs)

Sections:

- 17A.09.05 Purpose of Chapter
- 17A.09.10 Designation, Mapping, and Classification
- 17A.09.15 Protection Standards
- 17A.09.20 Reporting – Additional Requirements for Critical Aquifer Recharge Areas

17A.09.05 Purpose of Chapter

1. The purpose of this Chapter is to protect critical aquifer recharge areas from degradation resulting from new or changed land use activities. Due to the exceptional susceptibility and/or vulnerability of groundwater underlying aquifer recharge areas to contamination and the importance of such groundwater as sources of public water supply, it is the intent of this Chapter to safeguard groundwater resources by mitigating or precluding future discharges of contaminants from new land use activities. *[Source: Pierce Co. CAO]*

17A.09.010 Designation, Mapping, and Classification

1. **Designation.** Critical aquifer recharge areas are areas where an aquifer that is a source of drinking water is vulnerable to contamination that would affect the potability of water. These recharge areas have geologic conditions that allow high infiltration rates, which contribute significantly to the replenishment of ground water. These conditions also create a high potential for ground water contamination. All lands classified as having moderate to high aquifer recharge potential and aquifer susceptibility are hereby designated as critical aquifer recharge areas. Critical aquifer recharge areas also include known wellhead protection areas for Class A water system. A wellhead protection area is the surface and subsurface surrounding a well or wellfield that supplies a public water system through which contaminants are likely to pass and eventually reach the water well(s) as designated under the Federal Safe Drinking Water Act. *[WAC 365-190-030]*
2. **Mapping.** The general location and extent of critical aquifer recharge areas are shown on maps maintained by the County. These maps are useful as a guide for Kittitas County, project applicants, and/or property owners, and may be updated as more information on aquifer recharge and susceptibility becomes available. These maps are a reference and do not provide a conclusive or final critical area designation.
3. **Classification.** Lands within Kittitas County shall be classified as having either a high, medium, or low aquifer recharge potential. At a minimum, classification shall be based on soil permeability and recharge potential as described within the Soil Survey of Kittitas County. Where adequate information is available, aquifer recharge potential shall be further classified based on the recharge potential of surficial geologic materials, presence of absence of restrictive layers, surface and groundwater monitoring data, qualifying wellhead protection areas, depth to groundwater, topography (i.e., slopes), and locally adopted groundwater protection plans and studies. Land classified as having a high, medium, or low aquifer recharge potential shall also be classified as having a high, medium, or low susceptibility to contamination of an underlying aquifer,

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respectively. Based on these criteria, the potential for recharging aquifers or transmitting contaminants to the underlying aquifer is greatest where the aquifer is close to the ground surface, where ground surface slopes are minimal, and where the recharge potential of the soils and/or surficial geologic material is greatest. All wellhead protection areas for Class A water systems shall be designated as highly susceptible critical aquifer recharge areas. Wellhead protection areas are the areas defined by the boundaries of the 10-year time of ground water travel, in accordance with WAC 246-290-135. *[WAC 365-190-100 / Final Draft SMP Section 4.2]*

17A.09.15 Protection Standards

1. **New Use and Development.** New use and development in a critical aquifer recharge area shall meet the following standards:
 - a. The proposed use or development will not cause contaminants to enter the aquifer and will not significantly adversely affect the recharging of the aquifer.
 - b. The proposed use and/or development must comply with applicable water source protection requirements and recommendations of the Federal Environmental Protection Agency (EPA), Washington State Department of Health, and the Kittitas County Health Department.
 - c. The proposed use and/or development must be designed and constructed in accordance with the applicable stormwater management standards. *[New. The purpose is to alert applicants about state and federal laws that also regulate aquifers]*
2. **Storage Tanks.** When located within a critical aquifer recharge area, aboveground/underground storage tanks or vaults for the storage of hazardous substances, animal wastes, sewage sludge, fertilizers, or other chemical or biological hazards or dangerous wastes as defined in WAC Chapter 173-303, or any other substances, solids, or liquids in quantities identified by Kittitas County Public Health, consistent with WAC 173-303, as a risk to groundwater quality, shall be designated and constructed so as to:
 - a. Prevent the release of such substances to the ground, ground waters, or surface waters;
 - b. Be contained or enclosed by an impervious containment area with a volume greater than the volume of the storage tank or vault to avoid an overflow of the containment area;
 - c. Provide for release detection;
 - d. Provide written spill response and spill notification procedures to the local fire district;
 - e. Use material in the construction or lining of the storage containment area which is compatible with the substance to be stored to protect against corrosion or leakage, or otherwise designed in a manner to prevent the release or threatened release of any stored substance; and
 - f. Comply with chapter 173-303 and 173-360 WAC as well as International Building Code requirements. *[Source: Commerce sample code. These regulations are present in most, if not all, CAOs, are consistent with existing state and federal regulations]*

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3. **Waiver from Storage Tank Requirements.** The Director may grant a waiver from one or more of the requirements in Section 17A.09.15.2 upon a finding that the above ground storage activity would not create a significant risk to groundwater quality. Above ground or underground storage facilities designed and maintained according to an approved plan from the Natural Resources Conservation Service or Kittitas County Conservation District are exempt from these requirements, but remain under the jurisdiction of the County to ensure compliance with the protection features of this Chapter and for enforcement purposes. *[New. This provision is intended to provide flexibility to the County]*
4. **Use of Fertilizers, Herbicides, and Pesticides.** Application of pesticides, herbicides, and fertilizers shall adhere to the applicable best management practices to prevent impacts to groundwater quality. The use of fertilizers, herbicides, and pesticides may be subject to existing federal and state laws. *[Source: BAS Report 4-13. Historically, the County has not taken on oversight responsibility for agricultural chemical application. The CAC may wish to eliminate this standard so as not to introduce any new oversight responsibilities to the County for chemical applications that are regulated by other means.]*
5. **Hydrogeological Assessments.** The following uses and development activities, when proposed in critical aquifer recharge areas, have the potential to adversely affect ground water quality and/or quantity and may only be allowed subject to the County's review and approval of a special hydrogeological assessment prepared by a qualified professional:
 - a. Vehicle repair, servicing, and salvaging facilities; provided that vehicle repair and servicing activities are conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair, servicing, and salvaging must be stored in a manner that protects them from weather and provides containment should leaks occur. Dry wells shall not be allowed on sites used for vehicle repair, servicing, and salvaging. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the Washington State Department of Ecology prior to commencement of the proposed activity.
 - b. Use of reclaimed wastewater must be in accordance with adopted water or sewer comprehensive plans that have been approved by Ecology;
 - c. Any other use or development activity that the Director determines is likely to have a significant adverse impact on ground water quality or quantity, or on the recharge of the aquifer. The determination must be made based on credible scientific information;
 - d. New landfills, including hazardous or dangerous waste, municipal solid waste, special waste, wood waste of more than two thousand (2,000) cubic yards, and inert and demolition waste landfills;
 - e. Underground injection wells: Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells;
 - f. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade); and

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- g. Facilities that store, process, or dispose of chemicals containing perchloroethylene (PCE) or methyl tertiary butyl ether (MTBE). *[Sources: BAS report page 4-7 to 10 and Commerce's sample code. The intent of this section is to require additional scrutiny of high-risk uses with the potential to contaminate CARAs. The CAC may wish to refine this list based upon other high-risk uses that occur, or have the potential to occur, in the County]*

17A.09.20 Reporting—Additional Requirements for Critical Aquifer Recharge Areas

1. **Reporting.** When required by this Chapter, hydrogeological reports for proposed uses and developments in critical aquifer recharge areas shall include the general critical area report requirements of KCC 17A.02.75 in addition to the following:
 - a. Geologic setting and soils information for the site and surrounding area;
 - b. Water quality data, including pH, temperature, dissolved oxygen, conductivity, nitrates, and bacteria;
 - c. Location and depth of perched water tables;
 - d. Recharge potential of site (permeability/transmissivity);
 - e. Hydrologic budget;
 - f. Local groundwater flow, direction, and gradient;
 - g. Location, depth, and other water quality data on the three (3) shallowest wells or springs located within one thousand (1,000) feet of the site;
 - h. Potential impacts to wellhead protection areas located within the site;
 - i. Surface water locations within one thousand (1,000) feet of the site;
 - j. Discussion of the effects of the proposed project on groundwater quality and quantity;
 - k. Recommendations on appropriate mitigation, if any, to assure that there shall be no measurable exceedence of minimum state groundwater quality standards or measurable reduction in available quantity of groundwater;
 - l. Emergency management plan; and
 - m. Containment release detection. *[Source: BAS report page 4-12. These are standard CARA reporting requirements that are present in most, if not all, recent CAOs]*