

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.

"WETLAND MITIGATION BANK" – A site where wetlands are restored, created, enhanced, or in exceptional circumstances, preserved expressly for the purpose of providing advance mitigation to compensate for future, permitted impacts to similar resources.

WETLAND MOSAIC – An area with a concentration of multiple small wetlands, in which each patch of wetland is less than one acre; on average, patches are less than 100 feet from each other; and areas delineated as vegetated wetland are more than 50% of the total area of the entire mosaic, including uplands and open water.

"WETLAND, EMERGENT" means a regulated wetland with at least thirty percent (30%) of the surface area covered by erect, rooted, herbaceous vegetation extending above the water surface as the uppermost vegetative strata.

17-01.060 PRELIMINARY IDENTIFICATION OF CRITICAL AREAS: MAPS AND REFERENCE MATERIAL

A. Critical Areas are generally depicted on:

1. Federal Emergency Management Agency's (FEMA) Flood Insurance Rating Maps (FIRM);
2. ~~Columbia County Health Department, Category I Aquifer Recharge Area maps~~ City of Dayton Wellhead Protection Delineation Maps.
3. ~~National Wetlands Inventory~~ National Wetlands Inventory (NWI) maps;
- ~~4. U.S. Department of Agriculture (USDA), Natural Resources Conservation Service (NRCS), Soils Maps;~~
- ~~5. Federal Manual for Identifying and Delineating Jurisdictional Wetlands (1987 revised edition);~~
- ~~6. Washington State Tier Wetlands Rating System as it pertains to Category I-III wetlands;~~
- ~~7. Washington State Department of Natural Resources Geologic Hazard Areas maps;~~
- ~~8. Washington State Department of Natural Resources Mine Hazard Area maps base; U.S. Bureau of Land Management Mine Hazard Area maps;~~
- ~~9. Washington State Department of Fish and Wildlife (WDFW) Priority Habitats and Species (PHS) maps;~~
- ~~10. Washington State Department of Natural Resources Water Type maps;~~
- ~~11. U.S.G.S landslide hazard, seismic hazard, and volcano hazard maps;~~
- ~~12. U.S. Soil Survey's National Soils Survey Interpretations Handbook; and,~~
- ~~13. Washington State Department of Natural Resources Uniform Building Code Seismic Risk Zone~~ Geology and Earth Science maps.
- ~~14. Maps included in the City Comprehensive Plan, Community FIRM and other maps as adopted by the city.~~

b. Revised maps as issued by various governmental authorities after the date of adopting this ordinance ~~may~~ shall only be utilized as a preliminary source of information to assist in determining whether additional information is needed before determining if a proposal is subject to CAO, Title 17, special studies, requirements and standards. ~~The most current WDFW Priority Habitats and Species Maps which are frequently updated to reflect new information as gathered by field biologists, other resource experts and the public must be referenced.~~ This ordinance is designed to protect Critical Areas based upon the best available science at this time, which information has been subject to considerable review and comment from the general public as well as from scientific and technical sources.

These maps are used as a general guide to the location and extent of Critical Areas. Any presumption created by these maps may be rebutted by a preponderance of the evidence. These maps are also intended to alert the development community, City residents, as well as current and prospective landowners of the possibility of site development constraints which may limit or alter development plans. This ordinance only applies to critical areas and associated buffers and does not apply if critical areas and/or associated buffers do not exist on a given parcel.

17-01.070 INTERPRETATION OF DATA MAPS

The Planning Director of the City of Dayton is hereby designated as the responsible City official for the purpose

of interpreting data maps and determining if there is a critical area based on the definition of critical areas, whether mapped or not. An affected property owner or other party with standing has a right to appeal the administrative determination, using the same procedure as stated in Title 10 with the applicant supplying supporting documentation as to the justification for the appeal, such as a notarized affidavit from a qualified professional.

The data maps are to be used as a general guide to the location and extent of critical areas. Critical areas indicated on the data maps are presumed to exist in the locations shown and are protected under all provisions of this title. The applicant must document the exact location of critical areas as determined by field investigation(s) performed by a qualified professional(s) using the definitions and standards found in this title. All development applications are required to show the boundary(s) of all critical areas and critical area buffers on a scaled drawing, prior to the development application being considered "complete" for processing purposes.

~~17-01.071~~ EFFECT OF DATA MAPS

The conclusion by the Planning Director that a parcel of land or a part of parcel of land that is the subject of a proposed development applications with the boundary(s) of one or more critical areas as shown on the data maps, shall serve as cause for additional investigation and analysis to be conducted by the applicant. The site specific analysis shall be limited to those critical areas as determined by the Planning Director, which may be indicated on the data maps. ~~In the event of multiple designations, each subject matter will be addressed independently and collectively for the purpose of determining development limitations and appropriate mitigating measures.~~

~~17-01.080~~ DEVELOPMENT PERMIT REQUIRED ~~ESTABLISHMENT OF DEVELOPMENT PERMIT~~

~~17-01.081~~ Development Permit Required

DA development permit(s) shall be obtained before construction or development begins within any critical area and associated critical area buffers. The permit(s) shall be for all ~~structures including manufactured homes, as set forth in the "DEFINITIONS," and for all~~ development including structures, clearing, fill and other activities, also as set forth in the "DEFINITIONS." Boundaries of a critical areas and buffers must be clearly marked prior to construction any development activities.

All development applications are required to show the boundary(s) of all critical areas on a scaled drawing, prior to the development application being considered "complete" for processing purposes, unless the Planning Director allows information to be submitted as "additional information" after the application(s) are complete. In any case, no permit shall be granted for development activities in a critical area until all review evaluation and conditioning of the critical areas have been completed.

~~17-01.082~~ APPLICATION FOR DEVELOPMENT PERMIT

Application for a development permit shall be made on forms furnished by the City of Dayton and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities, and the location of the foregoing. Required information specific to each particular type of critical area is listed in ~~the each~~ each critical area ~~sections later in this ordinance.~~

If a project report is required for a development permit within a 100 year flood area, the following information is required:

1. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
2. Elevation in relation to mean sea level to which any structure has been flood-proofed;
3. Certification by a registered professional engineer or architect that the flood-proofing methods for any nonresidential structure meet the flood-proofing criteria in Section 17-02.033; and
4. Description of the extent to which a watercourse will be altered or relocated as a result of proposed development.

~~17-01.083~~ DESIGNATION OF THE LOCAL PLANNING DIRECTOR

The Planning Director is hereby appointed to ~~Planning Director and~~ implement this ~~ordinance title by granting or denying development permit applications~~ in accordance with its provisions.

~~17-01.084 PERMIT REVIEW RESPONSIBILITIES~~

~~The Planning Director shall be responsible for permit review including, but not be limited to:~~

- ~~A. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.~~
- ~~B. Review all development permits to determine that all necessary permits have been obtained from those Federal, State, or local governmental agencies from which prior approval is required.~~
- ~~C. Review all development permits to determine if the proposed development is located within a critical area.~~

17-01.085 ~~RECORD OF NOTICE ON TITLE~~

All designated critical areas shall be recorded as a "NOTICE ON TITLE" ~~on all documents of title of record~~ for all affected property.

17-01.086 PUBLIC NOTICE

In addition to the provisions for public notice provided under Title 10, the Planning Director shall provide official Notice of Decision and make the site assessment report available for public review upon approval of the following projects that have undergone critical areas review pursuant to this Title:

- A. All projects occurring in Category I Aquifer Protection Areas (Wellhead Protection), except single-family residence or accessory building permits, and short subdivision.
- B. All activities identified under Section 17-03.030(B), regardless of location; and
- C. Commercial or industrial projects or subdivisions that have the potential to adversely affect the quality or availability of potable water.

17-01.090 VARIANCE PROCEDURE

The procedure for review of critical area variances shall follow the procedures for review in Title 10, Administration of Development Regulations. Minor variances, defined as up to and including 10 percent of the requirement, may be granted by the director as a Type II decision as defined by DMC 10-01.030. Variance requests which exceed 10 percent may be granted by the hearing examiner as a Type III decision, pursuant to DMC 10-01.030. Variances for historic structures in frequently flooded areas are decided by the Planning Director per DMC 17-02.28.

17-01.092 VARIANCE CRITERIA.

Applications for variances to the strict application of the terms of this Title to a property may be submitted to the city. Minor variances, defined as up to and including 10 percent of the requirement, may be granted by the director as a Type II decision as defined by DMC 10-01.030. Variance requests which exceed 10 percent may be granted by the hearing examiner as a Type III decision, pursuant to DMC 10-01.030. Approval of variances from the strict application of the critical area requirements shall conform to the following criteria, except for Frequently Flooded Areas which shall meet the requirements in DMC 17-02.028:

- A. There are unique physical conditions peculiar and inherent to the affected property which make it difficult or infeasible to strictly comply with the provisions of this section;
- B. The variance is the minimum necessary to accommodate the building footprint and access;
- C. The proposed variance would preserve the functions and values of the critical area, and/or the proposal does not create or increase a risk to the public health, safety and general welfare, or to public or private property;
- D. The proposed variance would not adversely affect surrounding properties adjoining;
- E. Adverse impacts to critical areas resulting from the proposal are minimized; and
- F. The special circumstances or conditions affecting the property are not a result of the actions of the applicant or previous owner.

17-01.094 REASONABLE USE EXCEPTION

"Reasonable Use" means the minimum use to which a property owner is entitled under applicable state and federal constitutional provisions, including takings and substantive due process. Reasonable use shall be liberally construed to protect the constitutional property rights of the applicant. A reasonable use exemption shall be processed as a Type III land use application and comply with processing requirements of Title 10. Any alterations permitted to the critical area shall be the minimum necessary to allow for reasonable use of the property.

- A. If the application of these regulations deny reasonable use of a subject property, a property owner may apply for a reasonable use exception pursuant to permit review, public notice and appeal procedures set forth in Title 10 DMC.
- B. An application for a reasonable use exception shall include a critical area study and any other related project documents, such as permit applications to other agencies, and environmental documents prepared pursuant to the State Environmental Policy Act.
- C. The reasonable use application must satisfy all of the following criteria for approval:
 - 1. The application of these regulations deny any reasonable use of the property. The hearing examiner will consider the amount and percentage of lost economic value to the property owner;
 - 2. No other reasonable use of the property has less impact on critical areas. The hearing examiner may consider alternative reasonable uses in considering the application;
 - 3. Any alteration to critical areas is the minimum necessary to allow for reasonable use of the property;
 - 4. Impacts to critical areas are mitigated to the greatest extent reasonably feasible consistent with best available science;
 - 5. The proposal does not pose an unreasonable threat to the public health, safety, or welfare; and
 - 6. The inability of the applicant to derive reasonable use of the property is not the result of actions by the applicant after the effective date of this title.

The reasonable use may be approved, approved with conditions, or denied based on the proposal's ability to comply with all of the above criteria. The applicant has the burden of proof in demonstrating that the above criteria are met.

17-01.096 PUBLIC AGENCY AND UTILITY EXCEPTION

- A. If the application of this chapter would prohibit a development proposal by a public agency or public utility, the agency or utility may apply for an exception pursuant to this section.
- B. Exception Request and Review Process. An application for a public agency and utility exception shall be made to the city and shall include a critical area identification form; critical area report, including mitigation plan, if necessary; and any other related project documents such as permit applications to other agencies, special studies, and environmental documents prepared pursuant to the State Environmental Policy Act (Chapter 43.21C RCW). The director shall prepare a recommendation to the hearing examiner based on review of the submitted information, a site inspection, and the proposal's ability to comply with public agency and utility exception review criteria in subsection D of this section.
- C. Hearing Examiner Review. The hearing examiner shall review the application and director's recommendation, and conduct a public hearing pursuant to the provisions of Title 10 DMC. The hearing examiner shall approve, approve with conditions, or deny the request based on the proposal's ability to comply with all of the public agency and utility exception criteria in subsection D of this section.
- D. Public Agency and Utility Review Criteria. The criteria for review and approval of public agency and utility exceptions follow:
 - 1. There is no other practical alternative to the proposed development with less impact on critical areas;
 - 2. The application of this chapter would unreasonably restrict the ability to provide utility services to the public;
 - 3. The proposal does not pose an unreasonable threat to the public health, safety, or welfare on or off the development proposal site;
 - 4. The proposal attempts to protect and mitigate impacts to the critical area functions and values consistent with other applicable regulations and standards.
- E. Burden of Proof. The burden of proof shall be on the applicant to bring forth evidence in support of the application and to provide sufficient information on which any decision has to be made on the application.

17-01.200 DEVELOPMENT OR REGULATED ACTIVITY – DETERMINATION OF CONSISTENCY

- A. Any proposed non-exempt land use development or activity requires the applicant to complete a ~~Determination of Consistency development permit~~ application. The application shall include the following:
 - 1. a scaled drawing of the site and the proposed development;
 - 2. identification of the site location by section, township and range;
 - 3. the general location of all existing land uses, structures, public and private access roads;
 - 4. a completed SEPA checklist, if applicable; and

5. other applicable permit applications.
- B. An application for development permit(s) shall be deemed "complete" only when all required information is furnished. The Planning Director shall compare the site of the proposed development or activity against the Critical Areas Maps; any special reports or studies; and a site visit, if performed, so as to ascertain the following:
 1. ~~if the~~ The proposed development or activity falls within or near any resource area;
 2. ~~if the~~ The mapped resource exists;
 3. ~~if the~~ The development is likely to have a significant adverse impact on the functions and values of the Critical Areas;
 4. A Critical Areas Special Study(s) is required.
 5. ~~if all~~ necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
 6. Upon completion of the initial review, the Planning Director shall determine whether the development as proposed is consistent with the standards set forth in this Title. If the development as proposed is found to be consistent, a Determination of Consistency shall be issued.
- C. If a Determination of Consistency cannot be issued, the applicant is required to submit a Development Checklist along with the ~~which shall contain~~ following information:
 1. Legal description of the land, and assessor's parcel number.
 2. As defined herein, the location of the following, if applicable:
 - a. Wetlands
 - b. Aquifer recharge areas
 - c. Geologically hazardous areas
 - d. Frequently flooded areas
 - e. Priority Habitats
 - f. Prime agriculture lands
 - g. Forest resource lands
 - h. Mineral resource lands
 3. Any voluntary methods or activities anticipated by the applicant pertaining to critical areas, including incentives being offered by local or state government.
 4. Duplicate plans drawn to scale showing the nature, location, dimensions and elevations of the area in question, including existing or proposed structures, estimated amount of fill material, drainage facilities, significant natural features, and the location of the above items, if applicable. Survey quality documents will not normally be required.
 5. The requirement for delineating the location of possible critical areas will be waived if field investigation by City staff indicated the following:
 - a. Sufficient information exists for staff to estimate the boundaries of any critical areas without a delineation by the applicant; or
 - b. No structures and uses, except for exempt activities, are proposed to be located within any possible critical area.
 6. Subject to field investigation by City staff, or other reliable and relevant information, the information submitted by the applicant shall be presumed valid for all purposes under this title.
- D. Upon review of the Development Checklist, the Planning Director shall determine whether the development as proposed is consistent with the standards set forth in this title and, if so, a Determination of Consistency shall be issued. If the development is still likely to have a significant impact on the functions of resource, the applicant is required to conduct a "Critical Areas Special Study."

17-01.210 CRITICAL AREAS SPECIAL STUDY

The purpose of the Critical Areas Special Study is to adequately evaluate the proposal and all potential significant impacts on the resource. . The applicant is responsible for all cost associated with a Critical Areas Special Study and cost of study review by the city.

The study shall be performed by a professional who is licensed or qualified as an expert in the resources at issue. The study shall include the following when applicable:

- A. the resume of the principal author(s) which disclose(s) their technical training and experience and demonstrates their stature as a qualified professional;

- B. identification and characterization of the critical area resource(s);
- C. an assessment of any potential hazards associated with the proposed development;
- D. an assessment of the impacts of the development proposal on any critical area resource(s);
- E. a mitigation plan which reduces impacts to an insignificant level and specifies maintenance, monitoring and bonding measures (where necessary).
- F. any other site analysis and/or development plans specifically listed under the resource sections.

17-01.220 ISSUANCE OF DETERMINATION OF CONSISTENCY

A Determination of Consistency will be issued when it can be demonstrated, and the City finds that:

- A. after consideration of all feasible Best Management Practices, including alternative designs, scale (size), locations, and management plan, the proposed development meets the standards of this ordinance, protects the function and values of resource lands and critical areas, and the required mitigation reduces impacts to insignificant levels on an individual and /or cumulative project basis; or,
- B. significant impact to critical areas function and values are both unavoidable and necessary because of public health and safety, or specific local or regional economic consideration which override the public interest in the protection of critical areas, or because all reasonable economic uses for the property would be denied as a result of circumstances peculiar to the subject property; and all unavoidable significant impacts shall be offset by enhancement of other critical areas on or off-site.

17-01.230 GENERAL REQUIREMENTS OF PROPERTY OWNER

- A. Notice on Title of Critical Area - Upon the Issuance of a Determination of Consistency, the owner of any property wholly or partially within a Critical Area on which a regulated activity is undertaken or proposed shall record a "Notice on Title of Critical Area Protection" with Columbia County. The notice is to identify the presence of a critical area resource and buffer, the application of this ordinance to the property, and that limitations on action in or affecting such critical areas and buffers may exist.

The form of the Notice on Title of Critical Area Protection shall be provided by the Planning Director and shall contain, at a minimum, a description of the specific resource protected, i.e., wetland, riparian corridor, a map and legal description which identifies the resource boundary and the gross acreage within it. For the purposes of assessment, the filing of such a notice shall also designate the critical area resource and buffer lands eligible for reduced tax assessments.

The Notice on Title of Critical Area Protection shall run with the land and failure to provide such notice to any purchaser prior to transferring any interest in the property shall be a violation of this ordinance.

- B. Field Marking - Prior to commencing construction activities on a development site, the applicant shall mark, as is required by the City, the boundary of designated critical area resources and limits of allowed development in a highly visible manner, with an item such as, but not limited to, yellow caution tape or temporary silt fencing. These areas must remain so marked until all construction activities in the vicinity of the critical area are completed. All development related activities must stay outside the marked boundary.
- C. Surety of Performance - Performance and maintenance bonds or other forms of surety may be required to insure the completion of mitigation, restoration, enhancement or remediation requirements associated with any development impacting a critical areas resource.

17-01.240 APPEAL OF DECISION BY PLANNING DIRECTOR

An applicant or any person may appeal the Planning Director's decision to:

- A. require or not require a Special Study;
- B. issue or issue with conditions a Determination of Consistency;
- C. deny the issuance of a Determination of Consistency;
- D. extend or deny the extension of a Determination of Consistency.

The written appeal shall be made to the City Clerk within ten (10) working days from the date of the action. The appeal shall state clearly the resource issue and the specific findings or element of the action which are being contested.

Procedures as set forth in Title 10, Administration of Development Regulations shall be used for appeals.

17-01.250 TERM -- EXTENSION REQUIREMENTS

The Determination of Consistency shall be valid for two years from the date of issuance. An extension of the

Determination of Consistency shall not be required when substantial construction of the development has occurred within two years of issuance. Upon demonstration that the applicant has been diligently seeking required permits, a one year extension of the Determination of Consistency will be granted upon request of the original permit holder or successor in title.

When neither substantial construction nor diligence in seeking permits can be demonstrated, then prior to the granting of each one-year extension, the Planning Director shall review the original findings and may require updated information and /or assistance from persons or agencies having technical expertise. The Planning Director may require additional mitigation measures in order to extend the Determination, if the circumstances at the time of the original findings have been altered, or if the applicant has failed to abide by the terms of the original Determination.

17-01.260 SUSPENSION, REVOCATION

The Planning Director may suspend or revoke a permit if it finds that the applicant has not complied with the conditions or limitations set forth in the permit or has exceeded the scope of the work set forth in the permit. The Planning Director shall cause notice of the denial, issuance, conditional issuance, revocation, or suspension of a permit to be published in a timely manner in a daily or weekly newspaper having a broad circulation in the area wherein the wetland lies.

17-01.300 NONCONFORMING ACTIVITIES

A regulated activity that was lawful before the passage of this ordinance, but which is not in conformity with the provisions of this ordinance, may be continued subject to the following:

- A. No such structure or use shall be expanded, changed, enlarged, or altered in any way that increases its Nonconforming character relative to the provisions of this title without securing a Wetland Use Permit, except as specifically authorized in (B) and (C) below.
- B. Final Plat approvals, Wetland Use Permits, and building permits issued before the effective date of this ordinance amendment will continue to be controlled by the version of this ordinance in effect at the time of their final approval/permit issuance.
- C. In the event that a structure defined as Nonconforming relative to provisions of this title is destroyed by fire or remodeled, it may be rebuilt in such a way that does not increase the nonconformity, but such rebuilding or remodeling shall not trigger a requirement for restoration of wetlands, streams, or buffers that were altered in a way that was legal at the time of their alteration.

17-01.500 MITIGATION

Mitigation Shall Be Required in the Following Order of Preference:

- 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 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;
- D. Minimizing or eliminating the hazard by restoring or stabilizing the hazard area through engineered or other methods;
- E. Reducing or eliminating the impact or hazard over time by preservation and maintenance operations during the life of the action;
- F. 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
- G. Monitoring the hazard or other required mitigation and taking remedial action when necessary.
- H. Mitigation for individual actions may include a combination of the above measures.

17.01.600 ENFORCEMENT

The methods of enforcement of critical area protection shall include inspections, monitoring, reporting requirements, bonds, permit revocation, civil penalties, and abatement. Enforcement procedures shall comply

with Chapter 9-26 of the DMC.

17-01.700 NOTIFICATION

Property owners with land likely within one or more critical areas or critical area buffers must be notified of mapping or other resources known to designate areas as critical areas and critical area buffers within one year of adoption of this ordinance.

17-02 FREQUENTLY FLOODED AREAS

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17-02.001 FREQUENTLY FLOODED AREAS

"Frequently flooded areas" means lands in the flood plain subject to a one percent (1%) or greater chance of flooding in any given year. Frequently flooded areas perform important hydrologic functions and may present a risk to persons and property as designated by WAC 365-190-080(3). Classifications of frequently flooded areas include, at a minimum, the 100-year flood plain designations of the Federal Emergency Management Agency and the National Flood Insurance Program.

17-02.005 STATEMENT OF PURPOSE

It is the purpose of this chapter to promote the public health, safety, and general welfare; reduce the annual cost of flood insurance; and to minimize public and private losses due to flood conditions in specific areas by provisions designed:

- A. To protect human life and health;
- B. To minimize expenditure of public money and costly flood control projects;
- C. To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. To minimize prolonged business interruptions;
- E. To minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, and bridges located in areas of special flood hazard;
- F. To help maintain a stable tax base by providing for the sound use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. To ensure that potential buyers are notified that property is in an area of special flood hazard;
- H. To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

17-02.010 INTENT - REDUCING FLOOD LOSSES

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction; and

- C. Controlling the alteration of natural flood plains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage.
- E. Preventing or regulating the construction of flood barriers that unnaturally divert floodwaters or may increase flood hazards to other areas.

17-02.020 APPLICABILITY

This Chapter applies to all areas of special flood hazards within the jurisdiction of the City of Dayton.

17-02.022 ESTABLISHING AREAS OF SPECIAL FLOOD HAZARD

The areas of special flood hazard identified by the Federal Insurance Administration (44 CFR 60.3(c)(1)(d)(2)) with an accompanying Flood Insurance Rate Map (FIRM), and any revisions thereto, are hereby adopted by reference and declared to be a part of this ordinance. The Flood Insurance Study and the FIRM are on file at City Hall. The best available information for flood hazard area identification as outlined below shall be the basis for regulation until a new FIRM is issued which incorporates the data utilized.

When base flood elevation data has not been provided (A Zones) in accordance with this section, the Planning Director shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer DMC 17-02.033 SPECIFIC STANDARDS.

Where base flood elevation data is provided through the Flood Insurance Study, FIRM, or required as in this section, obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.

For all new or substantially improved flood-proofed structures where base flood elevation data is provided through the Flood Insurance Study, FIRM, or as required in this section:

- A. Obtain and record the elevation (in relation to mean sea level) to which the structure was flood-proofed and
- B. Maintain the flood-proofing certifications required in Section 17-01.082
- C. Maintain for public inspection all records pertaining to the provisions of this ordinance.

17.02.023 ALTERNATIVE BASE FLOOD DATA (IN A ZONE). (44 CFR 60.3(b)(4)) When base flood elevation data has not been provided (in A zone), basis for establishing the areas of special flood hazard, the planning director shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a federal, state or other source, in order to administer specific standards and floodways.

17.02.024 INFORMATION TO BE OBTAINED AND MAINTAINED.

- A. Where base flood elevation data is provided through the flood insurance study, FIRM, or required as in subsection (b) of this section, obtain and record the actual (as-built) elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement. (44 CFR 60.3(b)(5)(I)) Recorded on a current elevation certificate (FF81-31) with Section B completed by the local official.
- B. For all new or substantially improved floodproofed nonresidential structures where base flood elevation data is provided through the FIS, FIRM, or as required in subsection (b) of this section:
 - 1. Obtain and record the elevation (in relation to mean sea level) to which the structure was floodproofed. (44 CFR 69.3(b)(5)(II));
 - 2. Maintain the floodproofing certifications required in this chapter. (44 CFR 60.3(b)(5)(III));
- C. Maintain for public inspection all record pertaining to the provisions of this chapter. (44 CFR 60.3(b)(5)(III))

17-02.025 ALTERATION OF WATERCOURSES

Notify, in riverine situations, adjacent communities and the State Coordinating Office prior to any alteration or relocation of a watercourse, and submit copies of such notifications to the Federal Insurance administrator, (44 CFR 60.3(b)(6)). All permits of federal and state agencies must be obtained prior to any alteration or relocation.

17-02.026 INTERPRETATION OF FIRM BOUNDARIES

Make interpretations where needed, as to exact location of the boundaries of the areas of special flood hazards

(for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in Section 17-01.090.

17-02.027 WARNING AND DISCLAIMER OF LIABILITY

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the areas of special flood hazards or uses permitted within such areas will be free from flooding or flood damages. This ordinance shall not create liability on the part of the City of Dayton, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made hereunder.

17-02.028 VARIANCE CRITERIA AND CONDITIONS

A. Variances for Historic Structures

Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure. The structure or building must be a bona fide "historic structure" meeting the definition in DMC 17-01.030. Such variances are exempt from the procedures set forth in this title and variances shall be decided by the Planning Director.

B. Variance Criteria for all other structures - All technical evaluations, all relevant factors, standards specified in other sections of this title shall be considered together with the following criteria:

1. The danger that materials may be swept onto other lands to the injury of others;
2. The danger to life and property due to flooding or erosion damage;
3. The susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
4. The importance of the services provided by the proposed facility to the community;
5. The necessity to the facility of a waterfront location, where applicable;
6. The availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
7. The compatibility of the proposed use with existing and anticipated development;
8. The relationship of the proposed use to the comprehensive plan and flood plain management program for that area;
9. The safety of access to the property in times of flood for ordinary and emergency vehicles;
10. The expected heights, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
11. The costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.

Upon consideration of the factors listed above in this Section and the purposes of this chapter, the hearing body may attach such conditions to the granting of variance(s) as it deems necessary to further the purposes of this chapter.

C. Conditions and Limitations on Variances -

1. Generally, the only condition under which a variance from the elevation standard may be issued is for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing criteria in Section 17-02.028 B. 1-11. has been fully considered. As the lot size increases the technical justification required for issuing the variance increases.
2. Variances shall not be issued within a designated floodway if any increase in flood levels during the base flood discharge would result.
3. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
4. Variances shall only be issued upon:
 - a. A showing of good and sufficient cause;

- b. A determination that failure to grant the variance would result in exceptional hardship to the applicant;
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public, or conflict with existing local laws or ordinances.
 - d. A demonstration that no net loss of critical areas functions and values will occur as a result.
 - 5. Variances as interpreted in the National Flood Insurance Program are based on the general zoning law principle that they pertain to a physical piece of property; they are not personal in nature and do not pertain to the structure, its inhabitants, economic or financial circumstances. They primarily address small lots in densely populated residential neighborhoods. As such, variances from the flood elevations should be quite rare.
 - 6. Variances may be issued for nonresidential buildings in very limited circumstances to allow a lesser degree of flood--proofing than watertight or dry flood-proofing, where it can be determined that such action will have low damage potential, complies with all other variance criteria except 17-02.028 B. 1., and otherwise complies with DMC 17-02.031 Sections A, C and D of the GENERAL STANDARDS.
 - 7. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.
- D. The Planning Director shall maintain the records of all variances and appeal actions; and, file a report to the Federal Insurance Administration upon request.

17-02.030 GENERAL STANDARDS FOR FLOOD HAZARD REDUCTION

In all areas of special flood hazards, the following standards are required:

- A. Anchoring (44 CFR 60.3(a), (b))
 - 1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
 - 2. All manufactured homes must likewise be anchored to prevent flotation, collapse, or lateral movement, and shall be installed using methods and practices that minimize flood damage. Anchoring methods may include, but are not limited to, use of over-the-top or frame ties to ground anchors (Reference FEMA's "Manufactured Home Installation in Flood Hazard Areas" guidebook for additional techniques).
- B. Construction Materials and Methods (44 CFR 60.3(a)(3)(ii—iv))
 - 1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
 - 2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
 - 3. Electrical, heating, ventilation, plumbing, and air-conditioning equipment and other service facilities shall be designed and/or otherwise elevated or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- 1. Utilities(44 CFR 60.3(a)(5), (6))

All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the systems;

 - 2. The proposed water well shall be located on high ground that is not in the floodway (WAC 173-160-171);
 - 3. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharges from the systems into flood waters; and,
 - 4. Onsite waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- D. Subdivision Proposals (44 CFR 60.3(a)(4)(b)(3))
 - 1. All subdivision proposals shall be consistent with the need to minimize flood damage;
 - 2. All subdivision proposals shall have public utilities and facilities, such as sewer, gas, electrical, and water systems located and constructed to minimize or eliminate flood damage;
 - 3. All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and,
 - 4. Where base flood elevation data has not been provided or is not available from another authoritative

source, it shall be generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres (whichever is less).

17-02.031 PERMIT REVIEW

The Planning Department shall:

- A. Review all development permits to determine that the permit requirements of this chapter have been satisfied.
- B. Review all development permits to determine that all necessary permits have been obtained from those federal, state, or local governmental agencies from which prior approval is required. (44 CFR 60.3(a)(2))
- C. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions are met.

17-02.032 REVIEW OF BUILDING PERMITS

Where elevation data is not available either through the Flood Insurance Study, FIRM, or from another authoritative source (DMC Section 17-02.022), applications for building permits shall be reviewed to assure that proposed construction will be reasonably safe from flooding. The test of reasonableness is a local judgment and includes use of historical data, high water marks, photographs of past flooding, etc., where available. Failure to elevate at least two feet above the highest adjacent grade in these zones may result in higher insurance rates.

17-02.033 SPECIFIC STANDARDS FOR FLOOD HAZARD REDUCTION

In all areas of special flood hazards where base flood elevation data has been provided as set forth in DMC Section 17-02.022, Establishing Areas Of Flood Hazard, the following provisions are required (44 CFR 60.3(c)(1)):

A. Residential Construction

1. New construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated one foot or more above the base flood elevation.
2. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited, or shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:
 - a. A minimum of two openings having a total net area of not less than one square inch for every square foot of enclosed area subject to flooding shall be provided.
 - b. The bottom of all openings shall be no higher than one foot above grade.
 - c. Openings may be equipped with screens, louvers, or other coverings or devices provided that they permit the automatic entry and exit of floodwaters.

B. Nonresidential Construction (44 CFR 60.3(C)(3), (4))

New construction and substantial improvement of any commercial, industrial or other nonresidential structure shall either have the lowest floor, including basement, elevated one foot or more above the base flood elevation; or, together with attendant utility and sanitary facilities, shall:

1. Be flood-proofed so that below one foot or more above the base flood level the structure is watertight with walls substantially impermeable to the passage of water;
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy;
3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting provisions of this subsection based on their development and/or review of the structural design, specifications and plans. Such certifications shall be provided to the official as set forth in 17-02.023;
4. Nonresidential structures that are elevated, not flood-proofed, must meet the same standards for space below the lowest floor as described in 17-02.033 (B);

Applicants flood proofing nonresidential buildings shall be notified that flood insurance premiums will be based on rates that are one foot below the flood-proofed level (e.g. a building flood-proofed to the base flood level will be rated as one foot below).

C. Manufactured Homes (44 CFR 60.3(c)(6)(12))

All manufactured homes in the floodplains to be placed or substantially improved on sites, whether:

1. Outside of a manufactured home park or subdivision,

2. In a new manufactured home park or subdivision,
3. In an expansion to an existing manufactured home park or subdivision, or
4. In an existing manufactured home park or subdivision on which a manufactured home has incurred "substantial damage" as the result of a flood;

Shall be elevated on a permanent foundation such that the lowest floor of the manufactured home is elevated one foot or more above the base flood elevation and be securely anchored to an adequately designed foundation system to resist flotation, collapse and lateral movement.

- D. Manufactured homes to be placed or substantially improved on sites in an existing manufactured home park or subdivision that are not subject to the above manufactured home provisions be elevated so that either:
 1. The lowest floor of the manufactured home is elevated one foot or more above the base flood elevation, or
 2. The manufactured home chassis is supported by reinforced piers or other foundation elements of at least equivalent strength that are no less than 36 inches in height above grade and be securely anchored to an adequately designed foundation system to resist flotation, collapse, and lateral movement.
- E. Recreational Vehicles (44 CFR 60.3(c)(14))
 1. Recreational vehicles placed on sites are required to either:
 - a. Be on the site for fewer than 180 consecutive days,
 - b. Be fully licensed and ready for highway use, on its wheels or jacking system, is attached to the site only by quick disconnect type utilities and security devices, and has no permanently attached additions; or
 2. Meet the requirements of 17-02.033 (C) above and the elevation and anchoring requirements for manufactured homes.

17-02.040 AE AND A1—30 ZONES WITH BASE FLOOD ELEVATIONS BUT NO FLOODWAYS. (44 CFR 60.3(C)(10))

In areas with base flood elevations (but a regulatory floodway has not been designated), no new construction, substantial improvements, or other development (including fill) shall be permitted within Zones A1—30 and AE on the community's FIRM, unless it is demonstrated that the cumulative effect of the proposed development, when combined with all other existing and anticipated development, will not increase the water surface elevation of the base flood more than one foot at any point within the community.

17-02.050 FLOODWAYS.

Located within areas of special flood hazard established in this chapter are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwaters that can carry debris, and increase erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless certification by a registered professional engineer is provided demonstrating through hydrologic and hydraulic analyses performed in accordance with standard engineering practice that the proposed encroachment would not result in any increase in flood levels during the occurrence of the flood discharge. (44 CFR 60.3(d)(3))
- B. Construction or reconstruction of residential structures is prohibited within designated floodways, except for
 - (i) repairs, reconstruction, or improvements to a structure which do not increase the ground floor area; and
 - (ii) repairs, reconstruction or improvements to a structure, the cost of which does not exceed 50 percent of the market value of the structure either,
 1. Before the repair, or reconstruction is started, or
 2. If the structure has been damaged, and is being restored, before the damage occurred.

Any project for improvement of a structure to correct existing violations of state or local health, sanitary, or safety code specifications which have been identified by the local conditions, or to structures identified as historic places, may be excluded in the 50 percent.
- C. If subsection A. of this section is satisfied, all new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions for flood hazard reduction.

17-02.060 CRITICAL FACILITIES

Construction of new critical facilities shall be, to the extent possible, located outside the limits of the Special Flood Hazard Area (SFHA) (100-year floodplain). Construction of new critical facilities shall be permissible within the SFHA if no feasible alternative site is available. Critical facilities constructed within the SFHA shall have the

lowest floor elevated three feet or to the height of the 500-year flood, whichever is higher. Access to and from the critical facility should also be protected to the height utilized above. Flood-proofing and sealing measures must be taken to ensure that toxic substances will not be displaced by or released into floodwaters. Access routes elevated to or above the level of the base flood elevation shall be provided to all critical facilities to the extent possible.

17-03 AQUIFER PROTECTION AREAS

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17-03.001 AQUIFER PROTECTION AREAS

"Aquifer protection areas" designated as high susceptibility for aquifer contamination are those areas which lie within the A Zone on the FEMA maps. All development and all uses which lie within these areas shall be connected to the City's sewer system. No new uses on a septic system are permitted in high susceptibility areas of critical aquifer recharge.

17-03.010 INTENT

This Section establishes areas determined to be critical in maintaining both groundwater quantity and quality. This Section specifies regulatory requirements to be enacted when development within these areas is proposed to occur and provides a methodology by which the City will determine the level of review and any mitigations required. The intent of this Section is to:

- ☐ Define minimum regulatory requirements to protect groundwater quality and quantity for existing and future use; and
- ☐ Identify the practices, alternatives, or mitigations that can minimize the adverse impacts of proposed projects; and
- ☐ Ensure adequate design, construction, management, and operations to protect groundwater quality and quantity.

Existing and future beneficial uses of groundwater shall be maintained and protected and degradation of groundwater quality that would interfere with or become injurious to beneficial uses shall be avoided or minimized.

Wherever ground waters are determined to be of a higher quality than the criteria established for said waters under this Section, the existing water quality shall be protected, and contaminants that will reduce the existing quality thereof shall not be allowed to enter such waters, except in those instances where it can be demonstrated that:

A. An overriding consideration of the public interest will be served; and

- B. All contaminants proposed for entry into said groundwater(s) shall be provided with all known, available, and reasonable methods of prevention, control, and treatment prior to entry.

It is the intent of this regulation to be consistent with and implement the requirements of RCW 90.48, RCW 90.54, WAC 173-200, WAC 173-201A, WAC 173-160, WAC 246-290, and WAC 246-291, as the same may hereafter be amended.

17-03.020 AQUIFER RECHARGE AREA DESIGNATIONS

The City through this Section, hereby designates two categories for aquifer recharge areas. These categories are designated to assist the Planning Director in determining the level of assessment necessary to evaluate specific land use proposals. The categories are based on the determination that certain areas require additional scrutiny of the potential impacts of a proposed land use with consideration given to hydro-geologic vulnerability. All designated areas are subject to change as data and information are updated or become available.

17-03.021 DESIGNATION CATEGORIES.

Category I areas are those so designated because of the need to provide them special protection due to a specific pre-existing land use, or because they are identified by the City, County, State or Federal government as areas in need of special aquifer protection where a proposed land use may pose a potential risk which increases aquifer vulnerability.

Category I includes areas served by groundwater which have been designated as a "Sole Source Aquifer Area" under the Federal Safe Drinking Water Act; areas identified within a "closed" or "low-flow" stream watershed designated by the Department of Ecology pursuant to RCW 90.22; and areas designated as "Wellhead Protection Areas" pursuant to WAC 246-290-135(4) and the groundwater contribution area in WAC 246-290-135(4) and the groundwater contribution area in WAC 246-291100(2)(e).

Wellhead protection areas shall, for the purpose of this regulation, include the identified recharge areas associated with either Group A public water supply wells, those Group B wells with a wellhead protection plan filed with the Columbia County Health Department, or plats served by 5 or more individual wells where the average lot size is equal to or less than 2 acres for which a well head protection plan has been completed and filed with the Columbia County Health Department, Category I areas are shown on the Aquifer Recharge Area map.

Category II is designated as areas throughout the City not identified as Category I areas.

When any portion of the proposed project area lies partly within a Category I area, the proposed project shall be subject to the level of scrutiny provided for Category I area.

17-03.030 APPLICABILITY

All development projects are subject to the provisions of this Chapter, except for the following exempt uses:

- A. Existing activities that currently and legally exist at the time this Section became effective. However, expansions or changes in use are subject to this Section and the review process contained herein.
- B. Single-family residential building permits, including accessory building permits.
- C. Subdivisions, short plats, and multifamily development inside Category I areas where the resulting density is 4 dwellings per acres or greater.
- D. Single-family residential building permits where a site assessment report was required to be completed for the land division, in which case, to meet the conditions of this exemption, the Applicant must comply with the recorded plat notes and the applicable mitigations contained in the site assessment report.

17-03.032 PROHIBITED ACTIVITIES

The following activities are prohibited in Category I areas due to the probability and/or potential magnitude of their adverse effects on groundwater:

- A. Landfill activities as defined in WAC 173-304 and WAC 173-351.
- B. Class V injection wells, including:
 - 1. Agricultural drainage wells;
 - 2. Untreated sewage waste disposal wells;

- 3. Cesspools;
- 4. Industrial process water and disposal wells; and
- C. Radioactive waste disposal
- D. Radioactive disposal sites.

17-03.040 INITIAL PROJECT REVIEW -GENERAL PROCEDURES.

Applicants for all development projects not allowed under this chapter shall be required, through a site assessment report prepared pursuant to Section 17-03.043, to evaluate potential impacts to aquifer recharge areas, and appropriate mitigation measures to reduce or eliminate the potential for adversely impacting aquifer recharge areas shall be identified. The level of study and report detail required will be determined by the Planning Director based on the type of land use being proposed, the designated aquifer recharge area category, and the vulnerability of the underlying aquifer(s) to contamination.

The goal of this Section is to require Applicants to identify and characterize vulnerability to determine appropriate mitigation measures necessary, and to either eliminate potential adverse impacts or reduce potential adverse impacts to underlying aquifer(s).

17-03.042 PROJECT SCOPING.

The level of study which will be required of the Applicant by the Planning Director for a given development will be based on an initial project review by the Planning Director that may include staff from the Columbia County Health Department. Elements for the report that are required at a minimum and other elements that may be required as part of the scope for the study are listed in Section 17-03.043. Subsequent findings from the study or other information made available after the initial project review may obligate the Applicant to additional evaluation, development of a mitigation plan, and/or development of a groundwater monitoring plan. The following outlines the review process:

- A. The Planning Director shall review the project and determine the required scope of the Site Assessment Report. The scope of site assessment required shall be conveyed to the Applicant and/or his or her representative in writing. The Applicant may present evidence to the Planning Director to justify reduction in the scope for the Site Assessment Report.
- B. Four copies of the Site Assessment Report shall be submitted to the Planning Director for review.
- C. The Planning Director shall either approve the Site Assessment Report as submitted, require additional evaluation, or require development of a Mitigation Plan.
- D. If additional information is required beyond the initial Site Assessment Report, the Applicant and/or his or her representative shall be notified in writing of the specifics of the information required.
- E. The Applicant may present evidence to the reviewing official to justify modification of the requirement for additional information or present alternative or additional mitigation measures in lieu of further study.
- F. When, to the satisfaction of the Planning Director all information is provided and mitigation(s) established as being in compliance with this Section, the Planning Director shall make appropriate recommendations for project permit approval.

17-03.043 SITE ASSESSMENT REPORT

The scope of the Site Assessment Report shall be determined based on the initial project review specified in Section 17-03.034. The scope of the report may be reduced by utilizing appropriate mitigation measures, or if the water quality or quantity issue(s) are already known.

The Site Assessment Report shall be prepared by, or under the direction of, and signed by a professional engineer, licensed in the State of Washington, trained and qualified to analyze geologic, hydrologic, and groundwater flow systems; or by a geologist or hydro-geologist who earns his or her livelihood from the field of geology and/or hydrogeology and has received a degree in geological sciences from an accredited 4 year institution of higher education and who has relevant training and experience analyzing geologic, hydrologic, and groundwater flow systems.

- A. Site Assessment Report Requirements.
A site plan shall be prepared in accordance with the requirements of the Planning Director. In addition, a site assessment report shall include:
 - 1. A description of the project including those activities, practices, materials, or chemicals that have a

- potential to adversely affect the quantity or quality of underlying aquifer(s).
2. Identification of appropriate mitigation measures and description of how they will prevent degradation of underlying aquifer(s).
 3. A site plan or another appropriately sealed map showing the approximate location of known or geologically representative well(s) (abandoned and active), spring(s), and surface watercourses within 1,000 feet of the subject project property. All well logs available through the County Health Department for identified wells within 1000 feet of the project property shall be included.
 4. A description of the site-specific hydro-geologic characteristics regarding impact to the quantity or quality of underlying aquifer(s). At a minimum this will include a description of the lithology, depth to and static water level of known underlying aquifer(s), and depiction of groundwater flow direction and patterns on the appropriate map.
 5. Identification of the initial receptors of potential adverse impacts located hydraulically down-gradient from the project within 1,000 feet or as otherwise directed by the Planning Director
- B. Additional Site Assessment Elements.
- After the initial project review, one or more of the site assessment elements listed below may be required based upon the proposed project activity, aquifer recharge area classification, complexity of underlying hydro-geologic conditions, and/or the perceived potential to adversely impact hydraulically down-gradient receptors. One or more of these additional elements may also be required if the Applicant chooses to demonstrate that certain mitigation measures are not necessary to protect the quantity or quality of the underlying aquifer(s), or that the project does not pose a detrimental risk to hydraulically down-gradient receptors.
1. Lithologic (rock formation) characteristics and stratigraphic relationships of the affected aquifer(s) and overlying geologic unites (includes soil types) including thickness, horizontal and vertical extent, permeability, and infiltration rates of surface soils.
 2. Delineation of identified structural features such as faults, fractures, and fissures.
 3. Aquifer characteristics including determination or recharge and discharge areas, transmissivity, storage, hydraulic conductivity, porosity, and estimate of groundwater flow direction, velocity and patterns for the affected aquifer(s).
 4. Estimate of precipitation, evaporation, and evapotranspiration rates for the project area.
 5. Preparation of appropriate hydro-geologic cross sections depicting at a minimum underlying lithology and stratigraphy, aquifer(s), and potential or probable contaminant pathways from a chemical release.
 6. Contaminant fate and transport including probable migration pathways and travel time of potential contaminant release(s) from the site through the unsaturated zone to the aquifer(s) from the site through the unsaturated zone to the aquifer(s) may be attenuated within the unsaturated zone and aquifer(s). Include consideration of advection, dispersion, and diffusion of contaminants in the groundwater.
 7. Delineation of areas potentially affected by contaminant migration on the ground surface and/or through the affected aquifer(s).
 8. Determination of background or existing groundwater quality underlying the project area.
 9. Development of groundwater monitoring program to measure potential impacts of the development of underlying aquifer(s).
 10. Development of a spill plan and/or contingency plan describing the specific actions, which will be taken if a release of a contaminant(s) occurs, or if groundwater monitoring results indicate a contaminant(s) from the site has entered the underlying aquifer(s).
 11. The degree of continuity between groundwater and nearby surface water including potential impact to "closed" or "low-flow" streams from proposed groundwater withdrawals, and potential impacts to surface water quality from site runoff or contaminated groundwater discharge.
 12. Applicable projects shall be required to determine appropriate pumping rates and schedules that maintain appropriate pumping rates and schedules that maintain dynamic draw down levels above mean seal level.
 13. Applicable projects such as special use permits, short plats, or long plats shall test existing and/or test wells for nitrate levels and where appropriate calculate the nitrate loading rate at full build-out of the project. If the calculated nitrate loading in the intended water supply equals or exceeds 5 mg/L nitrate as nitrogen, the proposal will need to develop a mitigation plan. The point of compliance shall be

determined based on project specifics.

14. A description of wetlands and FWHCAs and their buffers when such occur within 300 feet of the recharge area.

17.03.050 AQUIFER RECHARGE AREA MITIGATION.

The Planning Director shall review development proposals to assess aquifer(s) vulnerability and establish needed mitigation. Where determined to be necessary through the site assessment process, development approvals shall include conditions designed to prevent significant degradation of water quality or reduction in water quantity in aquifer recharge areas. The project shall not cause degradation of the groundwater quality below the standards described in WAC 173-200.

17-03.051 WELLHEAD PROTECTION MITIGATION.

Where a wellhead protection plan that addresses the project area exists, the Planning Director shall use the recommendations contained in the wellhead protection plan as a basis for formulating mitigations. In the absence of such mitigation plan, the Planning Director shall contact the Public Water System Water Purveyor and jointly develop mitigations, a summary of which shall be signed by the Applicant and recorded with the Applicant's property title. Where the project includes 5 or more lots of 2 acres or less in size and is proposed to be served by individual wells, the Applicant shall prepare a Wellhead Protection Plan which must be approved by and kept on file with the Columbia County Health Department.

17-03.052 NITRATE LOADING MITIGATION.

If the project's calculated nitrate loading concentration at the determined point of compliance is equal to or greater than 5 mg/L nitrate as nitrogen, the project shall be required to place a notification on the documents of title for the property affected and a monitoring plan shall be developed to track the nitrate level and include a contingency plan to be implemented if the nitrate level exceeds 10 mg/L nitrate as nitrogen. If the plat nitrate loading calculation is equal to or exceeds 5 mg/L nitrate as nitrogen, then the Applicant shall develop a mitigation plan to reduce the nitrate loading rate below 5 mg/L nitrate as nitrogen.

17-03.070 CRITICAL AQUIFER RECHARGE AREAS ("CARAs")

"Critical aquifer recharge areas" are Category 1 areas designated by WAC 365-190-080(2) that are determined to have a critical recharging effect on aquifers used for potable water as defined by WAC 365-190-030(2). Critical aquifer recharge areas have prevailing geologic conditions associated with infiltration rates that create a high potential for contamination of ground water resources or contribute significantly to the replenishment of ground water.

17-03.071 PROHIBITED ACTIVITIES

Prohibited activities in Category I areas:

- A. Mining
 1. Metals and hard rock mining.
 2. Sand and gravel mining are prohibited in critical aquifer recharge areas determined to be highly susceptible or vulnerable unless a stormwater quality management plan is approved by the City Council.
- B. Wood Treatment Facilities. Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade).
- C. Other prohibited uses or activities
 1. Activities that would significantly reduce the recharge to aquifers currently or potentially used as a potable water source;
 2. Activities that would significantly reduce the recharge to aquifers that are a source of significant base-flow to a regulated stream; and
 3. Activities that are not connected to an available sanitary sewer system are prohibited from critical aquifer recharge areas associated with sole source aquifers.

17.03.080 PERFORMANCE STANDARDS – GENERAL REQUIREMENTS:

Activities may only be permitted in a critical aquifer recharge area if the applicant can show that the proposed

activity will not cause contaminants to enter the aquifer and that the proposed activity will not adversely effect the recharging of the aquifer.

The proposed activity must comply with the water source protection requirements and recommendations of the U.S. Environmental Protection Agency, Washington State Department of Health, and the Columbia County Health Department.

17-03.081 PERFORMANCE STANDARDS — SPECIFIC USES:

- A. Storage tanks. All storage tanks proposed to be located in a critical aquifer recharge area must comply with local building code requirements and must conform to the following requirements:
 - 1. Underground tanks. All new underground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:
 - a. Prevent releases due to corrosion or structural failure for the operational life of the tank;
 - b. Be protected against corrosion, constructed of non-corrosive material, steel clad with a non-corrosive material, or designed to include a secondary containment system to prevent the release or threatened release of any stored substances;
 - c. Use material in the construction or lining of the tank that is compatible with the substance to be stored.
 - B. Aboveground tanks. All new above ground storage facilities proposed for use in the storage of hazardous substances or hazardous wastes shall be designed and constructed so as to:
 - 1. Not allow the release of a hazardous substance to the ground, ground waters, or surface waters;
 - 2. Have a primary containment area enclosing or underlying the tank or part thereof, and
 - 3. A secondary containment system either built into the tank structure or a dike system built outside the tank for all tanks.
- C. Vehicle repair and servicing.
 - 1. Vehicle repair and servicing must be conducted over impermeable pads and within a covered structure capable of withstanding normally expected weather conditions. Chemicals used in the process of vehicle repair and servicing must be stored in a manner that protects them from weather and provides containment should leaks occur.
 - 2. No dry wells shall be allowed in critical aquifer recharge areas on sites used for vehicle repair and servicing. Dry wells existing on the site prior to facility establishment must be abandoned using techniques approved by the Washington Department of Ecology prior to commencement of the proposed activity.
- D. Use of reclaimed water for surface percolation or direct recharge. Water re-use projects for reclaimed water must be in accordance with the adopted water or sewer comprehensive plans that have been approved by the State Departments of Ecology and Health.
- E. Use of reclaimed water for surface percolation must meet the ground water recharge criteria given in Chapter 90.46.080(1) and Chapter 90.46.010(10) RCW. The Department of Ecology may establish additional discharge limits in accordance with Chapter 90.46.080(2) RCW.
- F. Direct injection must be in accordance with the standards developed by authority of Chapter 90.46.042 RCW.
- G. State and federal regulations. The uses listed below shall be conditioned as necessary to protect critical aquifer recharge areas in accordance with the applicable state and federal regulations.