**WHATCOM COUNTY COUNCIL AGENDA BILL**

**CLEARANCES**

<table>
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<tr>
<th>Originator</th>
<th>Initial</th>
<th>Date</th>
<th>Date Received in Council Office</th>
<th>Agenda Date</th>
<th>Assigned to:</th>
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**Division Head:**

**Dept. Head:**

**Prosecutor:**

**Purchasing/Budget:**

**EXECUTIVE:**

**TITLE OF DOCUMENT:**

Ord. amending WCC 16 to provide added wetland & geological hazard protection

**ATTACHMENTS:**

**SEPA review required?** ( ) Yes ( ) NO

**SEPA review completed?** ( ) Yes ( ) NO

**Should Clerk schedule a hearing?** (X) Yes ( ) NO

**Requested Date:** 3/29/2005

**SUMMARY STATEMENT OR LEGAL NOTICE LANGUAGE:** (If this item is an ordinance or requires a public hearing, you must provide the language for use in the required public notice. Be specific and cite RCW or WCC as appropriate. Be clear in explaining the intent of the action.)

This interim ordinance would amend the Whatcom County Critical Areas Ordinance, Whatcom County Code, Title 16, Chapter 16 to provide additional protection for wetlands and geological hazard areas in the Birch Bay Urban Growth Area.

**COMMITTEE ACTION:**

**COUNCIL ACTION:**

3/15/2005: Introduced


**Related County Contract #:**

**Related File Numbers:**

AB2004-288

**Ordinance or Resolution Number:**

Ord. #2005-035

Please Note: Once adopted and signed, ordinances and resolutions are available for viewing and printing on the County’s website at: www.co.whatcom.wa.us/council.
ORDINANCE NO. 2005-035

AN INTERIM ORDINANCE AMENDING WCC, TITLE 16, CHAPTER 16 TO PROVIDE ADDITIONAL REGULATORY PROTECTION FOR WETLANDS AND GEOLOGICAL HAZARD AREAS.

WHEREAS, the Whatcom County Comprehensive Plan, adopted May 20, 1997, establishes Birch Bay as an Unincorporated Residential/Recreational Urban Growth Area; and

WHEREAS, the Whatcom County Council is considering adoption of the Birch Bay Community Plan to guide development within the Birch Bay Watershed; and

WHEREAS, the Birch Bay Community Plan includes recommendations to amend Whatcom County development regulations to provide additional protection to wetlands, critical aquifer recharge areas, and geologically hazardous areas within the Birch Bay Watershed; and

WHEREAS, RCW 36.70.790 and RCW 36.70.795 permits adoption of interim official controls as long as a public hearing is held within 60 days of adoption; and

WHEREAS, RCW 36.70.795 requires the adoption of findings of fact which justify Council action, the Council makes the following findings of fact:

1. The Birch Bay area is one of the fastest growing areas of Whatcom County and has one of the highest concentrations of wetlands in the County.

2. Birch Bay is a significant shellfish growing area and was downgraded to “Threatened” status by the Washington State Department of Health due to increasing bacteria concentrations in marine waters.

3. A recently published literature review by the Puget Sound Action Team (PSAT) concludes that wetlands perform an important function of stormwater storage that helps prevent pollutants that threaten the shellfish harvest from entering the Bay.

4. The PSAT literature review also concludes that contamination and closure of shellfish growing areas is perhaps the most significant and quantifiable impact from urbanization.

5. Recently approved amendments to the Whatcom County Comprehensive Plan include Goal 11M and Policies M-3, M-4, M-5, M-6 and M-8 that support protection of shellfish growing areas through Low Impact Development standards, improved stormwater management and restoration of wetlands.

6. Whatcom County is in the process of reviewing and updating the County Critical Area Ordinance, with a contemplated adoption date in 2005.
7. This interim amendment of WCC, Title 16 is necessary to avoid future degradation of the Birch Bay Watershed and any associated harm to the health and welfare of the public.

8. The Whatcom County Council desires the opportunity to review existing code and regulations to permanently address these concerns.

NOW, THEREFORE, BE IT ORDAINED by the Whatcom County Council that Whatcom County Code, Title 16, is hereby amended as indicated in Exhibit A to this ordinance.

BE IT FURTHER ORDAINED by the Whatcom County Council, pursuant to RCW 36.70.795, that this ordinance shall be effective until the adoption of the update to the Whatcom County Critical Area Ordinance or for six months following its effective date, whichever is sooner, but may be renewed for one or more six-month periods if subsequent public hearings are held and findings of fact are made prior to each renewal.

ADOPTED this 29 day of March, 2005.

WHATCOM COUNTY COUNCIL
WHATCOM COUNTY, WASHINGTON

Laurie Caskey-Schreiber, Council Chair

() Approved  () Denied

Pete Kremen, County Executive

Date: 3-31-05
WHATCOM COUNTY

CRITICAL AREAS ORDINANCE

TITLE 16

CHAPTER 16.16

Whatcom County Planning and Development

Effective Date of Ordinance: November 3, 1997

with September 28, 2004 amendments
4. An analysis of how these impacts have been avoided and/or minimized.

16.16.245 Mitigation Requirements for Wetlands, Rivers and Streams

There shall be no activity allowed within a regulated wetland, river or stream area or buffer without mitigation unless the activity is authorized through section 16.16.225. Proposed critical area or buffer alterations shall include mitigation sufficient to maintain or enhance the functions of the critical area. Subject to the variance provisions of section 16.16.255, any proposed critical area or buffer alteration that cannot adequately mitigate its impacts to a regulated critical area shall be denied.

A. Mitigation Guidelines

1. Projects otherwise permitted pursuant to this chapter shall avoid, minimize, or mitigate for adverse impacts to the functions of regulated critical areas or their buffers by one or more of the following, in a manner such that the most effective protection or mitigation to critical area functions will take place with the greatest likelihood of success:

   a. Avoiding the adverse impact altogether by not taking a certain action or parts of an action;

   b. Minimizing adverse impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology, or by taking affirmative steps to avoid or reduce adverse impacts;

   c. Rectifying the adverse impact by repairing, rehabilitating or restoring the affected environment;

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

   e. Mitigating for the adverse impact by replacing, enhancing, or providing substitute resources or environments and monitoring the adverse impact and the mitigation project and taking appropriate corrective measures.

2. Mitigation for individual projects may include a combination of the above measures provided that within the Birch Bay UGA, Birch Point and Point Whitehorn areas mitigation shall result in no net loss of area and function of wetlands including the function of stormwater attenuation/runoff control at a level that existed on each project site in its pre-development condition.

B. Off-Site Mitigation

Off-site mitigation, including mitigation banking, may be accepted as appropriate mitigation under the following conditions:

1. On-site mitigation is not scientifically feasible due to hydrology, soils, waves, or
other factors; or

2. On-site mitigation is not practical due to potentially adverse impact from surrounding land uses; or

3. Mitigation occurs within an area where the most significant improvement to the critical area will take place with the greatest likelihood of success, and

4. Mitigation occurs within the subbasin which is adversely impacted. This provision may be waived upon demonstration through a watershed analysis that mitigation within an alternative subbasin of the same watershed would have greater ecological benefit than mitigation within the impacted subbasin. Mitigation may occur outside of the impacted watershed given the above demonstration on a watershed to watershed comparison and when no suitable site within the impacted watershed is available; and

5. Provided that on-site mitigation shall be required within the Birch Bay UGA, Birch Point and Point Whitehorn.

C. Determining Mitigation Requirements

In making a determination of the extent and type of mitigation required, Whatcom County will consider all of the following:

1. The functional characteristics of the critical area within the watershed or subbasin in which the critical area is located.

3. The isolated and cumulative adverse impacts of the action upon the functions of the critical area and associated ecosystem and watershed;

4. Observed or predicted trends regarding the gains or losses of this type of critical area in the watershed, in light of natural and human processes; and

5. The likely success of the possible mitigation measures.

D. Mitigation - General Requirements

1. Mitigation projects shall restore, enhance, or create equivalent areas at a scientifically based ratio appropriate for the function(s) being replaced in order to mitigate for functional losses. The restored, enhanced, or created area shall at a minimum provide an equivalent level of function, provided that replacement ratios shall not exceed (6:1).

2. Mitigation plans shall be completed and approved prior to critical area alteration and an appropriate installation schedule and completion date shall be set.

3. The applicant and their representatives shall demonstrate sufficient scientific expertise and supervisory capability, and shall demonstrate the capability for
D. **Conservation Futures Fund.** The County shall consider using Conservation Futures Property Tax Fund as authorized by RCW 84.34.230 for the acquisition of properties containing significant critical areas and their associated buffers.

**ARTICLE III GEOLOGICALLY HAZARDOUS AREAS**

**16.16.300 Purpose**

It is the purpose of this article:

A. To minimize hazards to the public and to reduce the risk of property damage from development activities on or adjacent to geologically hazardous areas; and

B. To regulate land use so as to avoid the need for construction of flood control devices on alluvial fans and allow for natural hydrologic changes.

**16.16.310 Critical Area - Landslide Hazard Areas**

Landslide hazard areas are geologically hazardous areas and therefore critical areas under this chapter.

A. Landslide hazard areas shall include areas potentially subject to landslides based on a combination of geologic, topographic and hydrologic factors. They include any areas including bordering uplands susceptible to landslides because of any combination of bedrock, soil, slope (gradient), slope aspect, structure, hydrology, or other physical factors. These include, but are not limited to, the following:

1. Areas with all three of the following characteristics:
   a. Slopes between 15 and 35 percent; and
   b. Hillsides intersecting geologic contacts with a relatively permeable sediment overlying a relatively impermeable sediment or bedrock; and
   c. Springs or ground water seepage; or

2. Slopes exceeding 35 percent; or

3. Potentially unstable slopes resulting from rapid river or stream incision, river or stream bank erosion, or undercutting by wave action. These include slopes adjacent to waterways exceeding 10 feet in height and sloping at more than a 35 percent gradient.

**16.16.320 Critical Area - Seismic Hazard Areas**

Seismic hazard areas are areas subject to a severe risk of earthquake damage as a result of seismically induced ground shaking, differential settlement, or soil liquefaction. This includes areas where surface deposits of manmade fill or partially decomposed organic material average
at least five feet in depth, filled wetlands, and areas of alluvial deposits subject to liquefaction. Seismic hazard areas are geologically hazardous areas and therefore critical areas under this chapter.

16.16.330 Critical Area - Mine Hazard Areas

Mine hazard areas are those lands in proximity to abandoned coal mines and associated underground mine workings. These mine workings include adits (mine entrances), gangways (haulage tunnels), rooms and chutes (large voids), drifts (water level tunnels), pillars (coal left for support) and air shafts. Mine hazards include subsidence, which is the uneven downward movement of the ground surface caused by underground workings caving in; contamination to ground and surface water from tailings and underground workings; concentrations of lethal or noxious gases; and underground mine fires. Mine hazard areas are geologically hazardous areas and therefore critical areas under this chapter.

16.16.340 Critical Area - Alluvial Fan Hazard Areas

Alluvial fan hazard areas are those areas on alluvial fans where flooding, boulder floods, and/or debris torrents have the potential to damage or harm the health or welfare of the community. They include the area generally corresponding to the path of recent and potential future stream flooding, boulder flooding, and/or debris torrents as determined by local topography, hydrology, and depositional history on the fan. This area shall also be known as the "active fan." Alluvial fan hazard areas are geologically hazardous areas and therefore critical areas under this chapter.

16.16.350 Regulatory Requirements

A. No critical facilities shall be constructed or located in geologically hazard areas without fully mitigating the hazard.

B. Projects shall be assessed through the Critical Areas Assessment Process.

C. Projects shall be engineered and/or constructed to fully mitigate the hazard, and protect the building and occupants from the hazard.

D. Land divisions may be clustered where permitted by zoning and as appropriate to reduce disturbance to the area.

E. Projects in landslide hazard areas must cause no increase in surface water discharge or sedimentation to other properties and shall not decrease slope stability on or off-site.

F. All development in seismic hazard areas shall conform to the provisions of the Uniform Building Code which contains structural safeguards to reduce impacts from seismic activity.

G. Projects within a mine hazard area where mine workings are less than 200 feet below ground level shall be engineered and/or constructed to fully mitigate the hazard, and protect the building and occupants from the hazard.
H. All projects on an alluvial fan hazard area must be engineered and constructed to withstand alluvial fan hazards and/or flooding equivalent to the largest known event evident on the fan as determined by professional assessment.

I. Clearing within alluvial fan hazard areas is prohibited without adequately addressing the significance of tree retention in an Assessment Report.

J. A minimum buffer of 150-feet shall be established for landslide hazard areas along marine shorelines for residential structures within the Birch Bay watershed. The buffer shall be measured from the “top” of bank [as defined by WCC 16.16.800(76)] in areas identified as landslide hazard areas.

16.16.360 Buffer Requirements

A. All buffers shall be measured on a horizontal plane from the wetland edge.

B. Buffers shall remain naturally vegetated except where the buffer can be enhanced to improve functional attributes.

16.16.370 Standard Buffer Adjustment

Standard buffers may be adjusted on a site specific basis by the Technical Administrator using the following methods:

A. Increased Buffer Widths: The county may increase standard buffer widths when it is determined that a larger buffer is necessary to protect slope stability, attenuation of surface water flows and landslide hazards based on local conditions. This determination shall be supported by appropriate documentation showing that it is reasonably related to protection of the functions of the regulated geologically hazardous area. Such determination shall be attached as a permit condition and shall demonstrate that:

1. A larger buffer is required by an approved geological assessment as outlined in section 16.16.235 and 240, or

2. The impacts of proposed land uses require greater buffers to protect slope stability, attenuation of surface water flows and landslide hazards; or,

3. The adjacent land is subject to slope instability or severe erosion.

B. Reduced Buffer Width. At the applicants or technical administrators request, the county may reduce the standard buffer widths under the following conditions:

1. The project includes a buffer enhancement plan using native vegetation, artificial habitat features, buffering, vegetative screening, barrier fencing, grass-lined swales or other enhancement tool as appropriate to site conditions and the geologically hazardous area. The applicant must clearly demonstrate that an enhanced buffer will provide additional protection for the geologically hazardous
area at least equal to the administratively determined buffer; or,

2. The applicant demonstrates that smaller buffers will adequately protect slope stability, attenuation of surface water flows and landslide hazards.
ARTICLE VIII  DEFINITIONS

16.16.800  Definitions

Words and phrases used in this chapter shall be interpreted as defined below and, where ambiguity exists, words or phrases shall be interpreted so as to give this chapter its most reasonable application in carrying out its regulatory purpose.

1. "Activity" means human activity associated with the use of land or its resource.
2. "Adequate water supply" means a water supply which meets the requirements specified in the Whatcom County health department interim water availability policy.
3. "Agricultural activities" means those activities directly pertaining to the production of crops or livestock including but not limited to cultivation, harvest, grazing, animal waste storage and disposal, fertilization, the operation and maintenance of farm and stock ponds or drainage ditches irrigation systems, canals, and normal maintenance, repair, or operation of existing serviceable structures, facilities, or improved areas. Activities which bring an area into agricultural use are not agricultural activities.
4. "Alluvial fan" means a fan shaped deposit of sediment and organic debris formed where a stream flows or has flowed out of a mountainous upland onto a level plain or valley floor.
5. "Alluvium" means a general term for clay, silt, sand, gravel, or similar unconsolidated detrital materials, deposited during comparatively recent geologic time by a stream or other body of running water, as a sorted or semi-sorted sediment in the bed of the stream or on its floodplain or delta.
6. "Anadromous fish" means fish species that ascend rivers from the sea to spawn.
7. "Animal Unit" in terms of wastes produced, 10 animal units are equal to 10 head of beef cattle, 7 dairy cattle, 2,900 broiler chickens, 15 horses, 1,800 laying hens, 550 turkeys or 120 sheep (1,000 pound equivalent = 1 animal unit).
8. "Aquifer" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells or springs (Chapter 173-160 WAC).
9. "Bedrock" means a general term for rock, typically hard, consolidated geologic material, that underlies soil or other unconsolidated, superficial material.
10. "Best Management Practices" means conservation practices or systems of practices and management measures that:
   a. Control soil loss and reduce water quality degradation caused by nutrients, animal waste, toxins, and sediment; and
   b. Minimize adverse impacts to surface water and ground water flow, circulation patterns, and to the chemical, physical, and biological characteristics of water.
11. "Best Management Practices (aquifer recharge areas)" means schedules of activities, prohibitions of practices, maintenance of procedures, and other management practices, to prevent or reduce the pollution of the state's ground water. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or water disposal, or drainage from raw material storage (Chapter 173-200 WAC).
12. "Buffer (the buffer zone)" means a designated area contiguous to a landslide hazard area intended to protect slope stability, attenuation of surface water flows and landslide hazards or a designated area contiguous to and intended to protect and be an integral part...
of an aquatic area, wetland and/or fish and wildlife HCA means the vegetated area adjacent to the outer boundaries of wetlands or the ordinary high water mark of rivers and streams which provide separation as required by this chapter, thus minimizing adverse impacts to these areas.

13. "Commercial fish" means those species of fish that are classified under the Washington Department of Fisheries Food Fish Classification as commercial fish (WAC 220-12-010).

14. "Conservation" means supervision of rivers, streams, wetlands, wildlife and other environmental resources in order to preserve and protect them through prudent management. This includes the careful utilization of natural resources in order to prevent depletion or harm to the environment.

15. "Contaminant" means any chemical, physical, biological, or radiological substance that does not occur naturally in ground water or that occurs at concentrations greater than those in the natural levels (Chapter 172-200 WAC).

16. "Contiguous Wetlands" are contiguous to a stream, river, pond, lake or marine water when they are connected by wetland hydrology as defined in the 1987 Edition, and as amended, Corps of Engineers Wetlands Delineation Manual.

17. "Critical Areas" The following areas as required in this chapter shall be regarded as critical areas:
   a. Geologically hazardous areas;
   b. Alluvial fan hazard areas;
   c. Frequently Flooded Areas
   d. Critical aquifer recharge areas;
   e. Wetlands;
   f. Fish and Wildlife habitat conservation areas

18. "Critical Area Specialist" means a Geologist, Geotechnical Engineer, Wetland and/or Stream Specialist, or Wildlife Specialist as defined in this article.

19. "Critical facilities" includes modification of selected critical facilities identified under the occupancy categories of essential facilities, hazardous facilities, and special occupancy structures in the Uniform Building Code, 1988 Edition, Table No. 23-K. These include:
   a. Essential Facilities.
      i. Fire and police stations;
      ii. Tanks or other structures containing, housing or supporting water or other fire-suppression materials or equipment required for the protection of essential or hazardous facilities, or special occupancy structures;
      iii. Emergency vehicle shelters and garages;
      iv. Structures and equipment in emergency-preparedness centers;
      v. Stand-by power generating equipment for essential facilities;
      vi. Structures and equipment in government communication centers and other facilities required for emergency response.
   b. Hazardous Facilities. Structures supporting or containing sufficient quantities of toxic or explosive substances dangerous to the safety of the general public if released.
   c. Special Occupancy Structures.
      i. Covered structures where primary occupancy is public assembly;
      ii. Buildings for schools, colleges, adult education or day-care centers;
      iii. Hospitals and other medical facilities;

20. "Debris flow" means a moving mass of rock fragments, soil, and mud; more than half of the particles being larger than sand size.

21. "Debris torrent" means a violent and rushing mass of water, logs, boulders and other debris.