

# WHATCOM COUNTY PLANNING & DEVELOPMENT SERVICES STAFF REPORT

## I. BACKGROUND INFORMATION

File #: PLN2011-00012

File Name: **Birch Bay Watershed Action Plan**

Applicant: Whatcom County Planning and Development Services Department

Public Notice: Legal notice was published in the Bellingham Herald on April 27, 2011 and a Planning Commission public hearing was held on May 12, 2011. A second public hearing is scheduled for December 8, 2011, and was published in the Bellingham Herald on November 25, 2011

SEPA: A SEPA Checklist was submitted to the Whatcom County SEPA Official on April 20, 2011.

60 Day State Review: Notice of the proposed development regulation amendments was sent to Department of Commerce on April 25, 2011, pursuant to RCW 36.70A.106.

Summary of Request:

- (1) Amend the Zone code WCC Title 20, by adding a new chapter, Chapter 20.50 to implement the Birch Bay Watershed Low Impact Development Overlay. Full text is provided in Exhibit A.
- (2) Add WCC 16.16.900 to the Critical Areas ordinance, to provide for a fee in-lieu-of mitigation program for Habitat Conservation Areas buffers and wetland buffer impacts with the Habitat Mitigation Fund. Full text is provided in Exhibit B.

Location: The area included in the program includes the Birch Bay watershed, consistent with Birch Bay Watershed and Aquatic Resource Management District.

Background:

1. On September 28, 2004, the Whatcom County Council adopted the new *Birch Bay Community Plan* which includes goals, policies and action strategies recommending protection and enhancement of natural systems and wildlife habitat. The Community Plan also supports development and implementation of Low Impact Development (LID) standards to help protect water resources and prevent adverse impacts to the shellfish resource (see page 7).
2. The Critical Areas Ordinance adopted by Whatcom County Council on September 13, 2005 allows for alternative approaches to mitigation through a watershed-based management plan when it satisfies the requirements of WCC 16.16.260 (E).
3. In 2007, a collaborate group of local, state, and federal agencies worked with citizens to develop the *Birch Bay Watershed Characterization and Watershed Planning Pilot Study* (ESA Adolphson, 2007). The study provided a watershed scale framework for guiding protection and restoration actions, and identifying areas most suitable for development. The watershed characterization methodology<sup>1</sup> provided the science to help understand the most important and impaired ecological processes in each subbasin. The follow up management recommendations (i.e., protect, restore, develop) recognize the unique natural and built systems of each subbasin

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<sup>1</sup> Washington Department of Ecology. 2005. Protecting Aquatic Ecosystems: A Guide for Puget Sound Planners to Understand Watershed Processes. Publication 05-26-027

and recommend land use management actions to meet the goals in each.

4. Whatcom County Council authorized the creation of the Birch Bay Watershed and Aquatic Resources Management (BBWARM) District as the stormwater management district in 2009. Citizens of Birch Bay initiated the program in order to fund projects that would mitigate existing flooding and water quality problems from decades of development that required little or no stormwater mitigation measures
5. The Birch Bay Shellfish Protection District was formed by the [Whatcom County Council](#) in 2009 after the [Washington State Department of Health](#) (DOH) prohibited harvesting of shellfish in a portion of Birch Bay due to risks to human health from pollution. DOH designated the District pursuant to RCW 90.72.045, due to water quality degradation caused by ongoing nonpoint sources of pollution.
6. In September 2008, Whatcom County Planning and Development Services received a grant to implement a watershed based approach to land use management based on the recommendations in the *Birch Bay Watershed Characterization and Watershed Planning Pilot Study* (ESA Adolfson, 2007).
7. In February 2010, Whatcom County published an alternatives report titled, "Birch Bay Action Plan, Review of Potential Implementation Tools" that describes non-regulatory land use programs from the West Coast, and their applicability and feasibility in the Birch Bay Watershed.
8. Based on public input of the alternatives, an implementation program was developed to provide nontechnical information to landowners regarding development techniques that can minimize the negative effects of development on the environment, provide pre-sized stormwater practices for small projects, and an offsite mitigation program for buffer impacts.
9. The Birch Bay Watershed Low Impact Development Overlay (Exhibit A) provides an optional approach to development regulations that awards credits to a combination of construction, minimization, and avoidance techniques in order to meet the minimum LID requirements rather than a conventional prescriptive approach.
10. The Habitat Mitigation Fund (Exhibit B) is a watershed-based management plan for consolidating impacts to buffers into more significant projects in areas that provide the greatest chance for ecological lift, consistent with the analysis provided in the *Birch Bay Watershed Characterization and Watershed Planning Pilot Study* (ESA Adolfson, 2007).
11. A Birch Bay Ad hoc Stakeholder Group was formed in June of 2011 to address concerns of the Planning Commission regarding technical review, complexity, and consistency with WA State Low Impact Development Standards. The group consisted of citizens and staff with backgrounds in engineering, policy, land use, environmental, and biological review. The group met six times between June 16, and October 25, 2011.
12. Public open houses, and workshops to discuss *Birch Bay Watershed Characterization and Watershed Planning Pilot Study* (ESA Adolfson, 2007) and implementation approaches of the Birch Bay Watershed Action Plan were held in Birch Bay on: March 21, 2007, July 18, 2007, Aug. 14, 2007, Jan. 9, 2008, Nov. 21, 2009, June 1, 2010, June 24, 2010, Nov. 15, 2010, Feb. 17, 2011, and November 21, 2011.
13. There have been three Planning Commission Work Sessions on drafts and public comments to the drafts on: Oct. 28, 2010, Feb. 10, 2011, and March 10, 2011. A public hearing was held on May 12, 2011 and again on Dec. 8, 2011.

## II. POLICY ANALYSIS OF THE PROPOSED AMENDMENTS

Factors to be considered when evaluating a rezone application are found in WCC 20.90.050 and case law. These factors are set forth and discussed below.

### A. Whether the initiated rezone or text amendment conforms to the requirements of the GMA, is internally consistent with the Comprehensive Plan and is consistent with County-Wide Planning Policies and any interlocal planning agreements executed pursuant to the GMA.

#### **Growth Management Act**

The LID Manual and Habitat Mitigation Fund work toward achieving the following planning goals of the Growth Management Act:

1. RCW 36.70A.020 (2) Reduce sprawl. Reduce the inappropriate conversion of undeveloped land into sprawling, low-density development.
2. RCW 36.70A.020 (6) Property rights. Private property shall not be taken for public use without just compensation having been made. The property rights of landowners shall be protected from arbitrary and discriminatory actions.
3. RCW 36.70A.020 (7) Permits. Applications for both state and local government permits should be processed in a timely and fair manner to ensure predictability.
4. RCW 36.70A.020 (9) Open space and recreation. Retain open space, enhance recreational opportunities, conserve fish and wildlife habitat, increase access to natural resource lands and water, and develop parks and recreation facilities.
5. RCW 36.70A.020 (10) Environment. Protect the environment and enhance the state's high quality of life, including air and water quality, and the availability of water.
6. RCW 36.70A.020 (11) Citizen participation and coordination. Encourage the involvement of citizens in the planning process and ensure coordination between communities and jurisdictions to reconcile conflicts.

#### **County-Wide Planning Policies** (Adopted April 1993, 3/11/1997 and 1/25/2005)

##### [Whatcom County Comprehensive Plan \(May 2009\) Appendix C, pg C-12](#)

##### Section N. Water Quality and Quantity

2. The Cities and the County in cooperation with other municipal corporations and tribal governments shall adopt zoning regulations and development standards to protect water resources. Where there are potential conflicts with designations required by the Growth Management Act, such as natural resource lands and critical areas, water resource protection shall generally have priority.
3. Jurisdictions shall cooperate to protect and restore water resources and fish habitat within UGA's and across jurisdictional boundaries to maintain quality of life and economic health in Whatcom County.
6. All jurisdictions should maximize reduction of water pollutants from stormwater runoff and combined sewer overflows.

## **Whatcom County Comprehensive Plan**

This section provides a list of *Whatcom County Comprehensive Plan* goals, policies and action items directly related to the proposed zoning code and Critical Areas Ordinance amendments.

### **Chapter 2 – LAND USE**

**GOAL 2F:** Give a high priority to the use of a comprehensive incentive program to encourage achievement of land use goals.

Policy 2F-1: Develop a set of incentives, including economic, which encourages property owners to achieve land use goals.

Policy 2F-2: Base incentive programs on suggestions from citizens, government officials, and experts in the field.

Policy 2F-3: Revise regulations to include incentive programs.

**Goal 2H:** Preserve private property rights while recognizing the importance of the rights of the community, including protecting the natural environment and conserving resources.

Policy 2H-1: Review and retain regulations that serve to protect the public welfare, health, and safety.

**Goal 2M:** Protect and encourage restoration of habitat for fish and wildlife populations.

Policy 2M-1: Ensure that new land uses do not degrade habitat of threatened and endangered species.

Policy 2EE-5: Promote better land use practices and protect water quality by encouraging landowners and developers to investigate and implement innovative subdivision, septic system designs, and stormwater management.

### **Chapter 11 - ENVIRONMENT**

**Goal 11A:** Protect natural resource and systems, life and property from potential hazards.

Policy 11A-2: Protect the environment through a comprehensive program that includes voluntary activity, education, incentives, regulation, enforcement, restoration, monitoring, acquisition, mitigation, and intergovernmental coordination.

Policy 11A-4: Manage designated Environmentally Critical Areas (ECAs) as needed, to minimize or protect against environmental degradation and reduce the potential for losses to property and human life.

Policy: 11B-6: Provide clear, timely, appropriate and understandable direction to citizens, developers, and property owners.

**GOAL 11B:** Ease the burden of excessive and confusing regulations, in instances when they are clearly identified, relating to the identification, delineation, and protection of environmental features.

Policy: 11B-1: Develop, as a primary component of a comprehensive environmental management program, non-regulatory measures that include voluntary activity, education, incentives, restoration, acquisition, mitigation, and intergovernmental coordination.

Policy 11B-2: Provide incentives for good stewardship of the land through the use of nonregulatory and innovative land use management techniques.

**Goal 11E:** Protect and enhance water quality and promote sustainable and efficient use of water resources.

Policy 11E-3: Pursue the most effective methods for protecting water quality, through both regulatory (e.g. zoning, enforcement, fines) and non-regulatory approaches (education, incentives, and technical/financial assistance). Emphasis should be placed on non-regulatory approaches where possible and effective.

**Goal 11G:** Protect water resources and natural drainage systems by controlling the quality and quantity of stormwater runoff.

Policy 11G-1: Manage stormwater runoff to minimize surface water quality and quantity impacts and downstream impacts on channel morphology, property owners, and aquatic habitats.

Policy 11G-2: Maintain or enhance, when appropriate, natural drainage systems and natural water storage sites in order to better protect water quality, moderate water quantity, minimize environmental degradation, and reduce public costs.

Policy 11G-3: Limit the alteration of natural drainage systems and natural water storage sites without acceptable mitigating measures. Such measures should not significantly degrade water quality or fish and wildlife habitat, and should not increase hazards to the community.

Policy 11G-8: Encourage the use of Low Impact Development Strategies. Minimize the amount of impervious surface whenever practicable by using natural engineering design methods such as the use of open, grassed street swales instead of curbs and gutters. Where feasible, encourage alternate surfacing options and other techniques associated with low impact development.

Policy 11G-10: Develop and administer regulations and incentives such that there is no net loss of areas that ecological functions and values as of wetlands and fish and wildlife habitats.

**Goal 11H:** Protect and enhance natural systems which provide economic, ecological, aesthetic, and cultural benefit.

Policy 11H-4: Where feasible incorporate fish and wildlife habitats into public capital improvement projects, and consider for incorporation into mitigation banking program

Policy 11H-5: Provide measures to mitigate water quality and quantity impacts from both public and private alterations of natural drainage systems.

Policy 11H-12: Support design and development of residential and industrial development that minimizes disturbance to rivers, streams, and functioning riparian areas.

**Goal 11J:** Protect and enhance natural systems that support native fish and wildlife populations and habitat.

Policy 11J-4: Support protection and enhancement of fish and wildlife habitat through site design in new development.

Policy 11J-7: Encourage native vegetation and soils retention and plantings which provide or maintain the beneficial uses and functions of streams, rivers, lakes and marine shorelines.

Policy 11K-4: Encourage land development that avoids or mitigates wetland impact. Impacts to important wetlands should be contingent upon full mitigation measures that equitably compensate for wetlands impacts, on a case by case basis. Strongly discourage alteration of land that results in the degradation of significant wetlands.

**Goal 11L:** Protect and enhance marine resources in Whatcom County.

**Goal 11M:** Protect and enhance shellfish habitat in commercial and recreational areas in order to ensure a productive resource base for long-term use.

Policy 11M-2: Restore degraded waters within the drainage basins of shellfish growing areas to a level that allows/supports shellfish harvesting.

Policy 11M-3: Protect shellfish resources by means of prevention. This should include surface and ground water monitoring for early detection of pollution which will minimize the damage and cost of resource restoration.

Policy 11M-5: Develop Low Impact Development standards in shellfish habitat areas.

Policy 11M-6: Identify stormwater treatment systems that will help reduce fecal coliform bacteria levels in stormwater that discharges directly into shellfish habitat areas and encourage their use and construction.

**Action Plan for Environmental Goals:** B. Non-regulatory Action (6) Develop a comprehensive and streamlined system of permitting and approval of building and land development projects which incorporates environmental protection. All effort should be made to make the permitting process accessible and understandable to the public. To this end, the application and permitting process should be housed in one accessible location. Additionally, a uniform, step-by-step procedure should be developed for the permitting process. This procedure should be available as a printed handout to prospective applicants and other interested parties.

## **Birch Bay Community Plan**

### **Chapter 7 - Critical Areas**

**Goal CA 1:** To commit to conservation and enhancement of critical areas for long-range benefit to all concerned.

**Policy CA-1b:** Ensure the continued existence and enhancement of fish and wildlife populations by protecting and conserving valuable fish and wildlife habitat.

### **Chapter 10 - Utilities**

**Goal SW 1:** Protect water resources and natural drainage systems by controlling the quality and quantity of stormwater runoff.

**Policy SW-1b:** Develop Low Impact Development standards to encourage narrow streets, preservation of pervious surfaces, retention of trees, natural vegetation and on-site stormwater infiltration.

**Goal SW-1e:** Avoid stormwater infiltration adjacent to eroding bluffs in areas where increased stormwater infiltration would exacerbate slope instability problems.

**Goal SW 2:** Implement stormwater management policies and strategies which recognize the value of wetland areas in solving stormwater problems.

**Action Strategy 9:** Develop Low Impact Development standards for Birch Bay and other sensitive watersheds. Low Impact Development regulations should consider allowance or requirement of narrower streets, limitations on impervious surfaces, tree retention policies, with the goal of retaining or replanting 65% tree cover in sensitive areas, and stormwater management techniques such as rain gardens and bioswales designed to increase stormwater retention and infiltration.

**Summary:** The collective goals, policies and action items/strategies of the Growth Management Act, County-Wide Planning Policies, Comprehensive Plan, and the Birch Bay Community Plan support this incentive based program to minimize the impacts of development on water resources and improve mitigation for Whatcom County's critical area buffers. Based upon the above referenced goals, policies and action items/strategies, the proposed amendments have been determined to conform to the objectives of the GMA and to be internally consistent with the objectives of adopted County plans and policies.

#### **B. The anticipated effect upon the rate or distribution of population growth, employment growth, development, and conversion of land as envisioned in the Comprehensive Plan.**

The proposed amendments are not anticipated to have a significant affect on the rate or distribution of population growth, employment growth, or land conversion within the Birch Bay Watershed as it is envisioned in the County-wide Comprehensive Plan.

#### **C. The anticipated effect upon the ability of County and/or other service providers, as applicable, to provide adequate public facilities including transportation facilities.**

It is not anticipated that the proposed amendments will create any adverse impacts to the abilities of county and/or other service providers to provide adequate public facilities or services within the Birch Bay Watershed. As the Birch Bay watershed is not served by a regional

stormwater facility, aside from County roadside ditches, it is anticipated that the proposed amendments will improve stormwater quantity and quality management within the watershed by controlling potential sources of nutrients, sediments, and pollutants at their source. New stormwater facilities will need to be privately maintained according to maintenance contract.

#### **D. Anticipated effect upon critical areas and resource lands.**

Land clearing and development activities can significantly affect water quality, basin hydrology, stream channel morphology and habitat quality/aquatic ecology increasing runoff from development sites to receiving water bodies. Erosion and sedimentation associated with stormwater runoff are of concern for a number of reasons including their impacts on water quality for beneficial uses such as fish and wildlife habitat, commercial and recreational shellfish harvesting, and recreation. These impacts can directly affect the fisheries resources by depositing silt and debris into spawning beds and altering the physical processes that create functional habitats for fish life-stages.

The proposed Low Impact Development Overlay amendment to WCC Title 20 is intended to help reduce potential development impacts to critical areas and resource lands by simulating pre-development hydrology and treating runoff to remove pollutants. Low Impact Development techniques, including bioretention, amended soils, and dispersion treat pathogens and heavy metals prior to entering receiving waters. Pervious pavement, infiltration, and rain-water harvest are Low Impact Development practices that have been shown to decrease the potential erosion to creeks and attenuate floodwaters from stormwater runoff on poorly drained soils in Birch Bay.<sup>2</sup>

Impacts to Critical Area buffers are permissible if an applicant can show they have taken measures to avoid and minimize the impact. Permitting agencies require compensatory mitigation when applicants cannot reasonably avoid all impacts to wetlands and their functions and values. Studies of environmental mitigation in Washington and other states have shown that mitigation projects often fail to restore environmental functions<sup>3</sup>. The principal reasons cited in these reports are inappropriate mitigation sites, poor design and construction standards, and inadequate maintenance.<sup>4</sup> Whatcom County policies and practices have over-emphasized the need to replace lost functions at or near impact site, rather than choosing mitigation sites that best fit with the mitigation goals of the project and its contributing basin. The *Birch Bay Watershed Characterization and Watershed Planning Pilot Study* (ESA Adolfson, 2007) provides the technical analysis to change this approach.

When Low Impact Development principles are employed to mitigate the hydrologic and water quality impacts of a development on-site, buffer width can be decreased with mitigation for lost wildlife and habitat functions. Mitigation for the encroached buffer will be mitigated for off-site through the Habitat Mitigation Fund.

As compared to typical on-site, permittee responsible mitigation for critical area impacts, the Habitat Mitigation Fund can offer improve mitigation success and increase flexibility to permittees for the following reasons:

- The sponsors of the mitigation program will identify the most high-priority wildlife habitat restoration areas within the watershed, based on habitat connectivity, wildlife corridors, species diversity and community development plans;
- Flexibility to combine mitigation needs from small project impacts into larger, regionally

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2 CH2M Hill. 2006. Birch Bay Comprehensive Stormwater Plan, Low Impact Development Feasibility and Effectiveness Review

3 Washington Department of Ecology (Ecology). 2002. Washington State Wetland Mitigation Evaluation Study, Phase 2: Evaluating Success. Ecology Publication #02-06-009.

4 National Research Council. 2001. Compensating for Wetland Losses Under the Clean Water Act. National Academy Press, Washington D.C.

significant restoration areas;

- Provides the County a better opportunity at mitigation success by having a sponsor experienced in completing mitigation projects, and implementing the mitigation plan;
- Provides permanent protection – the plan requires mechanisms for long-term protection, management, and maintenance of the project sites.

Impacts to Category III and IV wetlands with a low habitat score will be allowed with when a project qualifies as Low Impact Development. This only applies in sub-watersheds targeted for “development.” The benefit of this approach is premised on the idea that maximizing development in these sub-watersheds that provide limited ecological function will be better for the watershed as a whole than sprawling development into the watersheds that provide a high level of function. It also assumes that the functions of these marginal wetlands can be adequately replaced. The mitigation ratios of the Critical Areas Ordinance WCC 16.16.680 (C) for Category III wetlands are 2:1 when wetlands are recreated and 8:1 if mitigation is enhancement.

#### **E. The amendment must be based on changed conditions or further studies.**

Changed conditions within the Birch Bay Watershed include:

1. Recent County permit data and the 2010 U.S. Census indicate that the Birch Bay UGA population and associated development activities are increased rapidly between 2000 and 2010. The proposed amendments are intended to address potential stormwater and Critical Areas impacts associated with continued growth and development.
2. The warm shallow waters and extensive mudflats of Birch Bay provide excellent conditions for shellfish. It is the largest recreational shellfish harvesting area in Whatcom County, and one of the largest in the state. A 2007 shoreline survey of Birch Bay conducted by Washington State Department of Health (DOH) recommended a closure around the mouth of Terrell Creek due to fecal coliform bacteria. In October 2008, DOH closed a 670-yard radius around the mouth of Terrell Creek to commercial shellfish harvest. (DOH also recommends against recreational harvest at the site.) The proposed amendments are intended to provide such a management measure that will contribute to the protection of Birch Bay for long-term shellfish harvesting.
3. Over the last 10 years, Low Impact Development concepts have moved from a progressive and somewhat experimental level to mainstream acceptance by the environmental community, engineering community, and urban planners for stormwater management and control. In order to keep up with this changing technology it is necessary to update and amend goals and/or policies related to LID.
4. Science<sup>5</sup> and regulations<sup>6</sup> have improved in regards to their understanding and acceptance of offsite mitigation when done according to a watershed approach.<sup>7</sup>
5. New science based technical analysis are available that will support the watershed-based management plan, including:
  - *Birch Bay Watershed Characterization and Watershed Planning Pilot Study* (ESA Adolfson, 2007) was completed in 2007 consistent with the *Protecting Aquatic Ecosystems: A Guide for Puget Sound Planners to Understand Watershed*

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5 Washington Department of Ecology (Ecology). 2005. Protecting Aquatic Ecosystems: A Guide for Puget Sound Planners to Understand Watershed Processes. Ecology Publication #05-26-027.

6 U.S. Army Corps of Engineers (USACE) and Environmental Protection Agency (EPA). 2008. Compensatory Mitigation for Losses of Aquatic Resources; Final Rule. 33 CFR Parts 325 and 332 and 40 CFR Part 230. Published in Federal Register April 10, 2008.

7 Hruby, T., K. Harper, and S. Stanley (2009). Selecting Wetland Mitigation Sites Using a Watershed Approach. Washington State Department of Ecology Publication #09-06-032.

- Processes (Ecology, 2005);
- Based upon the findings of the “Pilot Study,” *Identification and Prioritization of Aquatic Habitat Restoration Projects at a Watershed Scale, Birch Bay, Washington* (Merrill, 2010), provides a site-specific restoration study for wetland and stream habitats in the watershed;
- *Riparian Vegetation Inventory and Function Assessment of Tributaries and Marine Shoreline, Northwest Whatcom County*, Anchor, QEA Inc. June 2010.

**F. The amendment must bear a substantial relationship to the public health, safety, morals, or welfare.**

Existing and potential sources of erosion and stormwater runoff associated with development within the watershed could significantly impact the quantity and quality of water necessary to sustain viable fish and wildlife habitat, as well as impact the long-term economic and recreational viability of shellfish harvest areas. The amendments are intended to:

- 1) Manage and preserve surface water quantity and quality to sustain recreational and commercial shellfish harvesting capabilities within Birch Bay;
- 2) Protect downstream property owners from off-site stormwater runoff impacts from adjacent properties; and
- 3) Protect Birch Bay’s surface waters and nearshore areas for public enjoyment, recreation, and tourism.

It is anticipated that increased land use conditions and thresholds related to stormwater management and critical areas buffer mitigation will likely reduce potential development impacts, therefore serving to protect the public health, safety and welfare within the Birch Bay Watershed.

### III. PROPOSED FINDINGS OF FACT AND REASONS FOR ACTION

1. The Birch Bay Watershed Action Plan amendments were docketed by Whatcom County Council on March 15, 2011.
2. The population of the Birch Bay Census Area grew by 10.1% from 2000 to 2010, the highest growth rate of any unincorporated area in Whatcom County<sup>8</sup>. The Birch Bay UGA and UGA Reserve contain sufficient residential land for a population growth of approximately 4,329 new residents by 2029<sup>9</sup>.
3. On September 28, 2004, the Whatcom County Council adopted the *Birch Bay Community Plan* which includes goals, policies and action strategies recommending protection and enhancement of natural systems and wildlife habitat, stormwater management, and development and implementation of Low Impact Development Standards.
4. Stormwater runoff from roofs, paved and graveled roadways, highways, parking lots, lawns, playfields and other surfaces is often polluted with toxic metals, organic compounds, and bacterial and pathogens that can harm human health, drinking water, fish habitat, and shellfish resources.
5. Erosion, bacteria, phosphorous and other pollutants associated with increased land clearing and development are of concern for a number of reasons including their potential impacts on water quality, basin hydrology, stream channel morphology, beneficial uses such as fish and shellfish habitat, and drinking water.
6. Clean water is necessary to maintain viable recreational and commercial shellfish harvesting areas within Birch Bay and to protect Birch Bay's waters and nearshore areas for public enjoyment, recreation, and tourism.
7. Low Impact Development stormwater management options can help prevent measurable harm to streams, lakes, wetlands and other natural aquatic systems resulting from commercial, residential, or industrial development.
8. Low Impact Development is a stormwater management and land development strategy that can be applied to projects at all scales. This strategy emphasizes conservation and the use of on-site natural features combined with engineered, small-scale hydrologic controls to closely mimic pre-development hydrology.
9. Whatcom County Comprehensive Plan Goal 11G identifies protection of water resources and natural drainage systems by controlling the quantity and quality of stormwater runoff as an objective of Whatcom County.
10. Whatcom County Comprehensive Plan Goals 11L and 11M identify protection and enhancement of marine and shellfish habitat through Low Impact Development standards, improves stormwater management and restoration of wetlands as objectives of Whatcom County.
11. Adoption of the Birch Bay Low Impact Development Manual will allow the use of stormwater management techniques that can complement regulations protecting critical areas by protecting water quality and controlling sedimentation and erosion.

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8 U.S. Census Bureau, 2010 Census Redistricting Data, via Bellingham Herald "2010 Census," February 23, 2011

9 Whatcom County Urban Growth Area Review, Executive Recommendations, Table 11, 8/17/2009

12. Whatcom County Comprehensive Plan Goal 2F gives a high priority to the use of a comprehensive incentive program to encourage achievement of land use goals.
13. The proposed Chapter 20.50 (Exhibit A) provides credits for various construction and avoidance techniques that count toward applicant benefits, including: variation to standard code requirements, access to the Habitat Mitigation Fund, and Whatcom County Staff assistance.
14. Each development site has a unique set of limitations and potential for mitigating impacts, such that one set construction technique or stormwater method cannot be universally applied with positive results.
15. The proposed Chapter 20.50 provides site specific flexibility for meeting LID objectives through a point system. Points are based on measurable attributes of: tree retention, revegetation, impervious surface coverage, stormwater management, and soil amendments.
16. Wetlands are regulated by Federal, State, and local agencies. Buffers to protect wetlands and streams are regulated by Whatcom County.
17. Based on an inventory for the Birch Bay Watershed Characterization and Watershed Planning Pilot Study (ESA Adolphson, 2007), wetlands and streams are abundant in the Birch Bay Watershed: approximately 25% of the Urban Growth Area, 60% of the Urban Reserve, and 35% of the Rural Designated areas are mapped as wetland.
18. Much of the dry upland areas of the watershed are already built upon, permitting of future development, consistent with community plans and the policies of the Whatcom County Comprehensive Plan will be a challenge.
19. Maintaining ecological processes within the watershed while facilitating community supported growth is dependent on a watershed approach to mitigation where projects have the best chance for success and have certainty over long term protection.
20. Impacts to low quality wetlands in sub-watersheds targeted for development may be allowed with LID projects when the functions of those wetlands will be mitigated according to the mitigation ratios of the Critical Areas Ordinance (WCC 16.16).
21. Since 2005 there have been forty four (44) permittee responsible mitigation plans approved by Whatcom County Planning and Development Services in the Birch Bay Watershed that are independently tracked by staff.
22. County authorization for establishing a watershed-based management plan derives from WCC 16.16.260.E. This Critical Areas provision allows permit applicants to satisfy mitigation requirements for critical area impacts through a watershed-based management plan.
23. A Birch Bay Ad hoc Stakeholder Group was formed in June of 2011 to address concerns of the Planning Commission regarding technical review, complexity, and consistency with WA State Low Impact Development Standards.
24. The Birch Bay Ad hoc Stakeholder Group met six times between June and October in order to refine the proposal and tie it closer to the science of the 2007 Watershed Characterization Pilot Study.
25. Legal notice for a Planning Commission public hearing was published in the Bellingham Herald on April 27, 2011 and again on November 25, 2011.

26. A determination of non-significance was issued under the State Environmental Policy Act (SEPA) on May 13, 2011.
27. Planning Commission public hearings were held on May 12, and December 8, 2011.

## IV. PROPOSED CONCLUSIONS

1. The amendments were initiated in accordance with WCC 20.90.030.
2. The amendments to WCC, Title 20 include alternative standards for tree retention, revegetation, impervious surfaces, and on-site stormwater management that are necessary to address potential adverse impacts from development activities, as well as avoid future degradation of the Birch Bay Watershed, the shellfish resource and any associated harm to the health, safety and welfare of the public.
3. As an optional program, applicants that take additional measures to minimize site impacts and mitigate runoff beyond the existing code requirements, are eligible for incentives through Whatcom County.
4. The proposed Chapter 20.50 provides an innovative approach to defining a Low Impact Development project that provides flexibility through a credit system for avoidance, minimization, and mitigation construction techniques.
5. The proposed Critical Areas amendment, 16.16.900, provides an alternative approach to managing critical areas specific to the Birch Bay Watershed. The approach to managing wetlands, buffers, and mitigation is supported through the science of the Birch Bay Watershed Characterization and Planning Pilot Study.
6. The use of Low Impact Development stormwater controls that will adequately mitigate for water quality and hydrologic impacts allow for a reduced wetland and stream buffer width.
7. The provisions of amendment 16.16.900 and the *Habitat Mitigation Fund: A Watershed-based Management Plan*, satisfy the requirements of 16.16.260 (E) "Alternative Mitigation Approaches and Watershed-Based Management Plans."
8. This pilot program contains provisions to measure performance, with evaluation to be completed by January 1, 2017.
9. The text amendments presented in Exhibit A and B are consistent with the goals and policies of the Growth Management Act, *Whatcom County Comprehensive Plan*, the County-Wide Planning Policies, and the *Birch Bay Community Plan*.

## V. STAFF RECOMMENDATION

Based upon the above analysis, findings of fact and reasons for action, and conclusions, Planning and Development Services recommends that the proposed amendments, attached as Exhibits A, B, and C, be approved by the Planning Commission.

## VI. ATTACHMENTS

- Exhibit A:** Proposed Amendments to the Zoning Code, Chapter 20.50  
**Exhibit B:** Proposed Amendments to the Critical Areas Ordinance, WCC 16.16.900  
**Exhibit C:** Habitat Mitigation Fund: Watershed Based Management Plan (Appendix F of the Critical Areas Ordinance)