



# Voluntary Stewardship Program

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## WORK PLAN

[www.skagitcounty.net/vsp](http://www.skagitcounty.net/vsp)  
cover illustration by Brenda Cunningham  
June 28, 2017



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# Executive Summary

## Background

In 2007, the State Legislature adopted the legislation starting the process that led to the Voluntary Stewardship Program for the purpose of “resolving, harmonizing, and advancing commonly held goals for environmental protection and agricultural viability.”<sup>1</sup> Skagit County has been involved in the development of VSP since its inception and is committed to being a leader in implementation of one of the first County work plans.

In Skagit County, the long-running conflict over critical areas in areas of agricultural activity has contributed to substantial uncertainty in the local agricultural industry, with many millions of dollars misspent on litigation instead of habitat enhancement and fish recovery. The Skagit County Board of Commissioners has long recognized the tension between protection of watershed resources and ensuring the viability of agriculture, but has also supported policies that attempt to strike the appropriate balance between those competing goals. In this new era, Skagit County embraces the opportunity that the Voluntary Stewardship Program provides to demonstrate and measure the County’s commitment to stewardship of all our natural resources.

## Why is this important?

Skagit County’s Skagit and Samish watersheds are important both locally and regionally. The Skagit River is the largest source of fresh water and home to some of the largest salmon runs in Puget Sound, and Samish Bay is one of the leading shellfish producers in the state. The Skagit

*“Our health and the health of Puget Sound go together.”  
—William Ruckelshaus*

watershed is the third largest river on the west coast of the contiguous United States and the largest and “one of the most unspoiled strongholds of fish and wildlife habitat in the Puget Sound.”<sup>2</sup> The Skagit River hosts all five species of Pacific salmon, including six independent populations of threatened Chinook salmon, six populations of threatened steelhead, at least 26 local populations of threatened bull trout, three populations of chum salmon, two populations of Coho, and one each of pink and sockeye. Skagit County is often called the “last, best hope” for salmon recovery in Puget Sound.

At the same time, the agricultural industry is critical to Skagit County’s economy and rural character, and to the food security of Western Washington. Skagit County ranks first in Washington State in the “Nursery, Greenhouse, Floriculture, Sod” commodity category and fifth in Washington State in “Milk from Cows” production and the “Vegetable, Melon, Potatoes, and Sweet Potatoes” commodity categories. Skagit County is also a major producer of cabbage, table beet, and spinach seed for the world.

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<sup>1</sup> SSB 5248 (2007).

<sup>2</sup> Skagit Chinook Recovery Plan 2005, at 2.

Moreover, protection of both critical areas and agriculture are not incompatible goals. As the Puget Sound Partnership Action Agenda proclaims, “agricultural lands [contribute to] critical fish and wildlife habitat and other ecosystem functions, especially in highly productive lower elevation riparian areas... maintaining the vibrancy of agriculture is crucial to recovering Puget Sound and instrumental in providing a high quality of life in the region.”<sup>3</sup>

## Our plan for natural resource stewardship

In Skagit County, Fish and Wildlife Habitat Conservation Areas (streams and their buffers) will be protected by a simple rule: **agriculture may not clear existing native riparian vegetation, but may continue existing farming adjacent to streams.** Other critical areas will remain protected by the existing county critical areas ordinance rules.

For enhancement, the plan proposes a number of voluntary outreach, incentives, and technical assistance programs which will work in conjunction with the County’s protection and monitoring efforts.

## Benchmarks and monitoring

The VSP legislation requires that this work plan include goals and benchmarks to evaluate it for success. Our work plan includes both *participation* metrics (standards by which the level of participation in VSP is evaluated) and *environmental* metrics (standards by which we can determine if we are achieving protection or enhancement).

The VSP legislation identifies two types of environmental metrics—those for protection and others for enhancement—and contains different consequences for failures to achieve the different types. If the County fails to achieve protection, it must adapt to achieve those metrics on an approved timeline. If the County fails to achieve enhancement, it must develop a plan to achieve the enhancement, but is not required to implement that plan until funding is provided. Enhancement metrics will be achieved through incentivizing best management practices through a variety of mechanisms.

*In Skagit County, agriculture may not clear existing native riparian vegetation, but may continue existing farming adjacent to streams.*

Skagit County will monitor progress through aerial photography monitoring beginning from the baseline year of 2011. Baselines will be measured for each stream basin at the standard buffer distance for each stream type. The resulting measurements will be reflected in a table for each monitoring year.

The success of this work plan depends on having a high-quality, structured, and iterative system for monitoring successes and failures and developing and implementing process improvements to achieve our goals and benchmarks.

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<sup>3</sup> Puget Sound Partnership, 2012/2013 Action Agenda for Puget Sound, page 51.

# About this Plan

## Plan Organization & Crosswalk to Statutory Requirements

RCW 36.70A.720(1) provides that the work plan must accomplish and include each of the elements below while maintaining the viability of agriculture in the watershed (RCW 36.70A.735(1)(a)).

Cite	Description
(a)	Review and incorporate applicable water quality, watershed management, farmland protection, and species recovery data and plans; <i>see Existing Plans &amp; Programs in the Watershed on page 82.</i>
(b)	Seek input from tribes, agencies, and stakeholders; <i>see Summary of Public Outreach Efforts on page 100 and Watershed Group Meeting Summaries on page 103.</i>
(c)	Develop goals for participation by agricultural operators conducting commercial and noncommercial agricultural activities in the watershed necessary to meet the protection and enhancement benchmarks of the work plan; <i>see Participation on page 37.</i>
(d)	Ensure outreach and technical assistance is provided to agricultural operators in the watershed; <i>see Coordination and Outreach on page 47 and Technical Assistance on page 50.</i>
(e)(i)	Create measurable benchmarks that, within ten years after the receipt of funding, are designed to result in (i) the protection of critical area functions and values; <i>see The participation metrics identified in the table above result in habitat enhancement or critical areas protections on the ground for wetlands, FWHCAs, and floodplain areas and are directly tied to this plan’s protection and enhancement goals. For example, the County’s Natural Resources Stewardship Program, fully described in Appendix 4, provides fencing, installs large woody debris, improves livestock crossings, and plants riparian vegetation. As another example, the County purchases easements from willing sellers through the Farmland Legacy Program, also more fully described in Appendix 4 and Voluntary Measures. These easements remove development rights from the floodplain, reducing flood risk, and also limit the amount of impervious surfaces that can be placed on that property. Therefore the protective easement metric is also specifically tied to this work plan’s critical areas protection and enhancement goals. The current use open space tax program and the relevant federal programs listed in the participation metric table are also more fully described in Appendix 4 while incentivizing these programs are described in the Voluntary Measures section. Protection on page 37.</i>

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- (e)(ii) Create measurable benchmarks that, within ten years after the receipt of funding, are designed to result in (ii) the enhancement of critical area functions and values through voluntary, incentive-based measures; *see Prohibition on Clearing Riparian Habitat and Expansion into Wetlands*

### EXISTING RULES

Skagit County's critical areas code requires administrative review of all land use activities within critical areas and their buffers, with some exceptions. One such exception is for:

*Existing activities defined as ongoing agriculture on designated agricultural land, including related development and activities which do not result in expansion into a critical area or its buffer and which do not result in significant adverse impacts to a critical area or its buffer; provided, that such activities comply with the provisions of SCC 14.24.120.*

The effect of this provision is that agriculture does not have to stop farming adjacent to critical areas, but if they do stop farming and plant riparian buffers, those buffers cannot be later removed. Agriculture also has to comply with the requirements of SCC 14.24.120 (the "ag-CAO").

### PROPOSED CLARIFICATION

Current Skagit County Code 14.24.120(3)(a) describes the County's "no harm or degradation standard" that all ongoing agricultural activities must meet. Among other things, this standard specifies that agriculture show:

*(v) No evidence of significant degradation to the existing fish habitat characteristics of the watercourse from those characteristics identified in the baseline inventory described in Resolution No. R20040211 that can be directly attributed to the agricultural activities that are described in this Section.*

Resolution R20040211 is the resolution setting up the County's existing water quality and salmon habitat monitoring programs. As described on page 86, those programs were not actually oriented toward establishing a useful countywide baseline, and were not useful for identifying individual activities that degraded fish habitat.

The County will propose to delete the reference to those programs and replace the sentence with a clearer standard:

*(v) No degradation of riparian habitat within the standard critical area buffer widths. Any in-water work, and any clearing of shrubs or trees other than noxious weeds with suitable replanting, within the standard critical area buffer widths is prohibited without critical areas review and approval.*

Because riparian clearing is already prohibited under the existing CAO, this is not a new substantive rule, simply a clearer expression of it.

Enhancement *on page 44.*

- (f) Designate the entity or entities that will provide technical assistance; *see Technical Assistance on page 50.*
- (g) Work with the entity providing technical assistance to ensure that individual stewardship plans contribute to the goals and benchmarks of the work plan; *see Technical Assistance on page 50.*
- (h) Incorporate into the work plan any existing development regulations relied upon to achieve the goals and benchmarks for protection; *see Error! Reference source not found. on page Error! Bookmark not defined. and Regulatory Backstop on page 51.*
- (i)(i) Establish baseline monitoring for: Participation activities and implementation of the voluntary stewardship plans and projects; *see Participation Metrics on page 52.*
- (i)(ii) Establish baseline monitoring for: stewardship activities; *see Participation Metrics on page 52.*
- (i)(iii) Establish baseline monitoring for: the effects on critical areas and agriculture relevant to the protection and enhancement benchmarks developed for the watershed; *see Environmental Metrics on page 52.*
- (j) Conduct periodic evaluations, institute adaptive management, and provide a written report of the status of plans and accomplishments to the county and to the commission within sixty days after the end of each biennium; *see Monitoring and Adaptive Management on page 52.*
- (k) Assist state agencies in their monitoring programs; *see Assistance to State Agencies on page 56.*
- (l) Satisfy any other reporting requirements of the program; *see Timelines for Reporting and Review on page 57.*

The final chapter addresses how the plan accomplishes these mandates while “maintaining the viability of agriculture,” starting on page 60.

## The VSP Legislation

In 2011, after a lengthy collaborative dialogue about how to manage the conflicts between critical areas protection and agricultural land preservation, the Washington State Legislature created the Voluntary Stewardship Program (“VSP”). The legislation provided an alternative to the traditional process, under the Growth Management Act, whereby counties were required to protect critical areas and could be challenged administratively and in court for failure to adopt sufficiently protective regulations. For more on the events leading to adoption of the VSP, see The Road to Ruckelshaus on page 25.

### Objectives

The overarching objectives of the statewide Voluntary Stewardship Program are to:

- protect critical areas, while maintaining and enhancing the long-term viability of agriculture in the watershed;<sup>4</sup>

<sup>4</sup> RCW 36.70A.700(2)(a) and 360.70A.725(3)(b).

- protect and enhance critical areas on lands used for agricultural activities through voluntary actions by agricultural operators;<sup>5</sup>
- encourage and foster a spirit of cooperation and partnership among county, tribal, environmental, and agricultural interests to better ensure the program success;<sup>6</sup>
- improve compliance with other laws designed to protect water quality and fish habitat;<sup>7</sup> and
- rely upon voluntary stewardship practices as the primary method of protecting critical areas and not require the cessation of agricultural activities.<sup>8</sup>

## The Implementation Process

In summary, the VSP legislation provides for the following process for implementation. The dates in parenthesis describe when Skagit County accomplished each step.

- County opts into VSP (December 19, 2011)
- County designates Watershed Group to develop work plan (November 10, 2014)
- County sends work plan to State Conservation Commission (May 19, 2017)
- State VSP Technical Panel reviews work plan (within 45 days of receipt)
- County begins implementation of work plan

## The Watershed Group

### Structure

On September 16, 2014, the Board of County Commissioners initiated participation in the Voluntary Stewardship Program, designated the County as the entity to coordinate the Watershed Group, and began the process to solicit Watershed Group participants.<sup>9</sup> In its resolution, the Board announced its desire to appoint Watershed Group members who have multiple interests and a demonstrated ability to collaborate. The Board designated the Natural Resources Division of the County Public Works Department to coordinate the Watershed Group and made the Watershed Group advisory to the Public Works Director.

### Role and Duties

RCW 36.70A.720 describes the duties of the Watershed Group, the most important of which is to develop the work plan. To that end, the advisory panel worked with county staff to develop the draft text of this work plan, while the technical review panel were asked to provide written feedback on technical aspects of the draft plan.

After the work plan receives state approval, the statute provides for the Watershed Group to:

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<sup>5</sup> RCW 36.70A.705(1).

<sup>6</sup> RCW 36.70A.700(e).

<sup>7</sup> RCW 36.70A.700(f).

<sup>8</sup> RCW 36.70A.700(g).

<sup>9</sup> Resolution R20140287.

*(j) Conduct periodic evaluations, institute adaptive management, and provide a written report of the status of plans and accomplishments to the county and to the commission within sixty days after the end of each biennium;*

*(k) Assist state agencies in their monitoring programs; and*

*(l) Satisfy any other reporting requirements of the program.<sup>10</sup>*

See also Timelines for Reporting and Review on page 57.

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<sup>10</sup> RCW 36.70A.720(1).

## Participation

The County received 21 letters from a broad range of individuals and groups with interest in serving on the Watershed Group. In November 2014, the Board appointed the following people to the Watershed Group advisory panel by Resolution R20140330:

### **John Anderson**

Lifelong Conway resident, longtime family farm background, Skagitonians to Preserve Farmland board member

### **Jodi Bluhm**

Lifelong Skagit County resident, Fir Island landowner, and Samish Indian Nation restoration specialist

### **Ann Childs**

Padilla Bay basin landowner, Stream Team member

### **Tyler Clark**

Skagit County Agricultural Advisory Board member, former manager of Skagit Conservation District and former WSU Extension Agent

### **Bill Dewey**

Samish basin landowner and Public Affairs Manager for Taylor Shellfish Farms

### **Oscar Graham**

Blanchard area landowner and critical areas and land use planning consultant

### **Oscar Lagerlund**

Lifelong Skagit dairy farmer, Drainage and Irrigation District 14 Commissioner, former Skagit County Planning Commissioner

### **David Olson**

Dike District 3 Commissioner; Farms, Fish, and Flood Initiative (3FI) Hydraulic and Hydrology committee member

### **Kenny Johnson**

Nookachamps dairy farmer; Skagit County Farm Bureau Board of Directors; former Skagit County Planning Commissioner

### **Jeff Schwab**

Lifelong Skagit resident; agricultural pesticide retailer; volunteer firefighter

### **Jason Vander Kooy**

Lifelong Skagit Delta dairy farmer; Dike District 1 Commissioner

### **John Wolden**

Lifelong Fir Island resident; Skagit Dike, Drainage, and Irrigation District 22 Commissioner; Tidegate Fish Initiative committee member

The Board of County Commissioners also appointed the following people to the Watershed Group technical review panel to review the draft work plan and provide written feedback.

### **Daryl Hamburg**

Dike District 17 operations manager; Farms, Fish and Flood Initiative Oversight Committee member

### **Carolyn Kelly (retired)**

Skagit Conservation District Manager, Skagit Watershed Council board member, Clean Samish Initiative Executive Committee member

### **Kris Knight (no longer available)**

The Nature Conservancy project manager

### **Allen Rozema**

Skagitonians to Preserve Farmland Executive Director; Farms, Fish, and Flood Initiative Oversight Committee member

### **Larry Wasserman (declined appointment)**

Swinomish Indian Tribal Community Environmental Policy Director

The following County staff worked to develop the work plan:

**Emily Derenne**

Public Works Habitat Restoration Specialist and  
Natural Resource Stewardship Program Manager

**Josh Greenberg, Ph.D.**

Senior Geographic Information Systems/  
Remote Sensing Analyst

**Rick Haley**

Public Works Water Quality Analyst and Water  
Quality Monitoring Program manager

**Jeff McGowan**

Public Works Salmon Habitat Specialist and  
Salmon Habitat Monitoring Program Manager

**Michael See**

Public Works Water Resources Section Manager

**Betsy Stevenson**

Planning & Development Services  
Natural Resources Senior Planner

**Kara Symonds**

Public Works Watershed Planner, Farmland  
Legacy Program Coordinator, VSP Watershed  
Group facilitator

**Ryan Walters**

Assistant Planning Director (2016-present)  
Deputy Prosecuting Attorney (2007-2015)  
Skagit County rep to Ruckelshaus (2007-2011)

# Background

## County and Environmental Context

Skagit County lies in the northwestern portion of Washington State, framed by the majestic Cascade Mountains to the east and the scenic San Juan Islands to the west. The Skagit River defines a majority of the landscape through the County, running from the mountains through a fertile valley to Puget Sound. The Skagit River is the third largest river in volume on the West Coast of the contiguous United States, after the Columbia and Sacramento Rivers. It provides about 20% of the fresh water flowing into Puget Sound, or nearly 10 billion gallons a day. The Skagit is the only river system in Washington that supports all five species of salmon. It contains some of the largest and healthiest wild Chinook salmon runs in Puget Sound and the largest pink salmon stock in Washington.<sup>11</sup>

The County is home to 116,901 residents, covers 1,735 square miles of land, contains 8 incorporated jurisdictions, and numerous communities. Residents are attracted to Skagit County for many reasons including its industries, rural character, agricultural landscape, diverse natural resources, and abundant recreational activities. From 2000 to 2010, the County's population increased by 13.5%.<sup>12</sup> Skagit County is home to four tribes: the Upper Skagit Tribe, the Swinomish Tribe, the Samish Indian Nation, and the Sauk-Suiattle Tribe.<sup>13</sup>

The County's eastern boundary falls on the Cascade Mountain crest. Three-fourths of the County is mountainous with a number of peaks that rise above 8,000 feet in elevation; the County's highest peak is Mount Buckner, which stands at around 9,100 feet in elevation. The terrain in the mountainous areas of eastern Skagit County is one of extreme topography and rugged scenic beauty, with numerous glaciers and perpetual snowfields. The peaks are sharply defined and the plentiful streams of the region cascade swiftly down to the lowlands. One-fourth of the County's area consists of lowlands and flat valley floors. Broad alluvial flat areas cover a major part of the southwestern portion of the county where the Skagit River delta extends into Skagit Bay. The northwestern part of the county, drained largely by the Samish River, is topographically similar.<sup>14</sup>

The Skagit River basin has a total drainage area of 3,115 square miles. The Skagit River originates near the 8,000-foot level of the Cascade Mountains in British Columbia, Canada and flows south and then west to the Skagit delta where it discharges through two distributaries, the North and South Forks, to Skagit Bay. The major cities on the Skagit River delta include Sedro-Woolley, Burlington, Mount Vernon, and La Conner. The basin extends about 110 miles in a north-south direction, reaching 28 miles into British

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<sup>11</sup> Washington State Department of Ecology, Overview of the Basin, 2011

<sup>12</sup> U.S. Census Bureau, 2010 Census

<sup>13</sup> Governor's Office of Indian Affairs

<sup>14</sup> Washington State Water Program, Water Supply Bulletin No. 14, 1973

Columbia, and approximately 90 miles in an east-west direction between the crest of the Cascade Mountains and Puget Sound. The Skagit River floodplain contains about 22,000 acres east of Sedro-Woolley and 74,000 acres west of Sedro-Woolley. Principal tributaries of the Skagit River are the Sauk, Baker, and Cascade rivers.<sup>15</sup>

Approximately 48% of Skagit County is in public ownership, mostly in the mountainous regions. The major public landowner is the federal government, including the Mt. Baker-Snoqualmie National Forest and the North Cascades National Park. A land cover analysis of the County revealed that approximately 71.3% of lands are classified as forest, 6.7% as agriculture, 6.6% as water, 4.8% as ice and rock, 3.2% as developed, 3.2% as grassland, 2.8% as wetland, and 1.4% as unconsolidated shore.<sup>16</sup>

## Agricultural Context

Agriculture is a principal industry in Skagit County. Commodities include milk, livestock, poultry, crops, and value added products. There are over 90 different crops grown in the County. Blueberries, raspberries, strawberries, tulips, daffodils, pickling cucumbers, specialty potatoes, Jonagold apples, and vegetable seed are some of the more important crops in the maritime valley. More tulip, iris, and daffodil bulbs are produced in Skagit County than in any other county in the United States. Ninety-five percent of the red potatoes grown in Washington are from Skagit County. Skagit County ranks first in Washington State in the “Nursery, Greenhouse, Floriculture, Sod” commodity category, fifth in Washington State in “Milk from Cows” production, and also fifth in the “Vegetable, Melon, Potatoes, and Sweet Potatoes” commodity category. Skagit County is a major producer of cabbage, table beet, and spinach seed for the world. There are seven vegetable seed companies in the county, most of which market products globally.

In addition to food and fiber products, agriculture in the region provides habitat for thousands of raptors and overwintering waterfowl. Numerous agricultural suppliers, organizations, and agencies serve the needs of this important industry, such as seed companies, food processors, growing associations, financiers, researchers, and farm machinery providers. Each year since 1999, over 20,000 people attend farm tours during the Festival of Family Farms to learn more about the bounty, beauty, and complexity of the valley’s working landscape.<sup>17</sup>

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<sup>15</sup> U.S. Army Corps of Engineers, 2009

<sup>16</sup> Skagit County GIS, 2011

<sup>17</sup> Washington State University, Mount Vernon Cooperative Extension Office, 2014

In 2010, the Legislature created an agricultural scenic corridor within the scenic and recreational highway system in order to showcase the state’s historic agricultural areas and to promote the maintenance and enhancement of agricultural areas. In Skagit County, Interstate 5 from Starbird Road to Bow Hill Road was designated an agricultural scenic corridor.<sup>18</sup>



Other Puget Sound counties have experienced significant farmland losses. Working with farm families and other farm protection groups, Skagit County has worked to keep agriculture viable. Today, the County has protected more than 10,000 acres of fertile farmland from future development with its Farmland Legacy Program. This program allows the County to purchase development rights and conservation easements, which protects open space and productive farmland in perpetuity. Skagit County taxpayers are positive about paying this property tax to preserve open space, their rural lifestyle, and agriculture. Surveys show citizens value this program.

In 1966, a progressive group of elected officials adopted the County’s first zoning ordinance and shortly after passed a Large Acreage Lot Size, establishing a 30-acre-minimum lot size on agricultural land. That has since increased to a lot size of 40 acres in areas zoned as Agricultural-Natural Resources Lands, protecting the County from urban sprawl. The purpose of the Agricultural-Natural Resources Lands district is to provide for continued farming activities, conserve agricultural land, and reaffirm agricultural use, activities, and operations as the primary use of the district. In addition, Rural Resource-Natural Resources Lands also have a minimum lot size of 40 acres. The purpose of the Rural Resource-Natural Resources Lands district is to recognize and encourage the conservation of those lands that have the characteristics of both long-term commercially significant agriculture and forestry on-site or nearby.

## Value and Extent of Agriculture

Between the two principle zones intended for agriculture, Skagit has 89,277 acres zoned Agriculture-Natural Resource Lands and 26,871 acres zoned Rural Resource-Natural Resource Lands.<sup>19</sup> The 2012 Census of Agriculture cites 106,538 acres of land in farms with an average size of 99 acres, with a total market value of \$272,275,000 worth of products sold. This ranks Skagit County tenth among Washington counties for market value of products sold.<sup>20</sup> In 2013, Skagit County’s food processing industry gross sales were \$630 million, which ranks Skagit County eighth in terms of food processing sales in Washington State.<sup>21</sup>

<sup>18</sup> Substitute Senate Bill 6211 (2010), passed 47-0 in the Senate and 96-0 in the House.

<sup>19</sup> Skagit County Comprehensive Plan

<sup>20</sup> USDA Census of Agriculture, 2012

<sup>21</sup> Washington State Department of Revenue, 2013

Agricultural practices vary among the County's different land forms. The soils of Skagit County are of two main groups: alluvial, or bottom-land, soils and upland soils. Most of the soils of the bottomlands are fertile and highly productive and have many different agricultural uses. These soils occur mostly in the valley and on the delta of the Skagit River, where most land is zoned Agricultural-Natural Resource Lands. Within these soils, there are wide variations in color, texture, and thickness of the surface layer and in the character of the subsoil and substratum, with some soils having very slow internal drainage and underdrainage.<sup>22</sup> **Maintenance of drainage infrastructure is critical to agricultural production in these poorly drained soils.**

### Typical Agricultural Practices

The alluvial soils in the valley and on the delta of the Skagit River are fertile and highly productive supporting many different agricultural uses. Agricultural practices vary based on the commodity. For instance, some vegetable seed crops need over a decade in rotation. The following summarizes a sample of agricultural stewardship practices employed producers in the Skagit Valley:

- Routine soil samples to analyze for soil pH, lime requirement, nitrate nitrogen, phosphorus, potassium, calcium, magnesium, sodium, soluble salts, organic matter, and calculated cation exchange capacity
- Planting winter cover crops on most open (non-cropped) fields for soil health and benefit of waterfowl, shorebirds, raptors, and other wildlife
- Careful crop rotation to break disease cycles, rebuild organic matter content, balance nutrient cycles, and enhance complex microbiology
- Operating and maintaining sophisticated drainage infrastructure to break anaerobic soil cycles and promote soil health
- Supplemental irrigation as required to enhance yields
- Nutrient management, especially dairy, to monitor manure application management
- Manure application to cropped fields to promote microbial activity, add organic matter, and to reduce use of commercial fertilizers
- Research programs and projects with Washington State University, Mount Vernon Extension Office and others to verify best management practices
- Integrated Pest Management approach to allow natural systems to control pest and disease issues and minimize chemical control methods
- Modern, state of the art application equipment utilizing Precision Ag and GPS technology for precise target application of fertilizer and chemicals
- Use of alternating chemical disease control materials to eliminate or minimize disease resistant populations

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<sup>22</sup> Soil Survey of Skagit County, WA, U.S. Department of Agriculture, 1960

- Rotating biological controls into the Integrated Pest Management process
- Multiple practices designed to reduce overall fertilizer and chemical usage, such as micro-application and common pattern
- Intermittent compost application for enhanced microbial and plant nutrient supply
- Fencing to keep livestock out of watercourses
- Complicated tillage methods to avoid soil compaction and periodic deep tillage to mitigate compaction for enhanced crop yield and improved water percolation
- Reduction of soil tillage when possible to reduce expense and improve soil tilth concerns
- Proper seed selection for high yield, appropriate for local conditions, and physical constraints
- Product testing and Good Agricultural Practices certification to ensure food safety
- Pesticide residue monitoring program in agricultural watercourses
- Adaptive management decision matrix to address arising issues

## The Growth Management Act and Critical Areas Protection

### GMA Goals and Directives

The Washington State Growth Management Act (GMA), adopted in 1990, provides general direction to local governments in creating local comprehensive plans and development regulations. GMA contains fourteen unprioritized planning goals for local government to consider as they develop land use plans and development regulations.<sup>23</sup> Alas, these goals and directives frequently conflict. For example, conservation of agricultural lands figures prominently among those goals:

*(8) Natural resource industries. Maintain and enhance natural resource-based industries, including productive timber, **agricultural**, and fisheries industries. **Encourage the conservation** of productive forest lands and **productive agricultural lands**, and discourage incompatible uses.*

But at the same time, GMA includes goals related to the conservation of fish habitat and water quality:

*(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.*

*(10) Environment. Protect the environment and enhance the state's high quality of life, including air and **water quality**, and the availability of water.<sup>24</sup>*

<sup>23</sup> Thirteen goals are listed in RCW 36.70A.020; the goals and policies of the Shoreline Management Act are incorporated into GMA as the fourteenth goal by RCW 36.70A.480.

<sup>24</sup> RCW 36.70A.020 (partial).

While the planning goals provide for local discretion, GMA also includes mandatory direction to counties to designate and conserve agricultural lands of long-term commercial significance<sup>25</sup> and designate critical areas,<sup>26</sup> “use the best available science in developing policies and development regulations to protect the functions and values of critical areas,” and “give special consideration to conservation or protection measures necessary to preserve or enhance anadromous fisheries.”<sup>27</sup>

Local plans and regulations are presumed valid upon adoption, but can be challenged for non-compliance with GMA to the Growth Management Hearings Board and then appealed to the courts. Skagit County has spent millions of dollars and more than twenty years attempting to balance these objectives.

*Under GMA, local plans and regulations are presumed valid upon adoption.*

### Five types of critical areas

The Growth Management Act and the County’s Critical Areas Ordinance (CAO) recognize five types of critical areas:

- wetlands;
- critical aquifer recharge areas;
- frequently flooded areas;
- geologically hazardous areas; and
- fish and wildlife habitat conservation areas.

This last group, fish and wildlife habitat, includes streams and streamside areas.<sup>28</sup> **Fish and wildlife habitat conservation areas are of primary importance to the intersection of critical areas protection in areas of agricultural activity.** Approximately 85 percent of terrestrial vertebrate species in Washington State use riparian habitat for essential life activities.<sup>29</sup> While salmon are not the exclusive focus of fish and wildlife habitat critical areas, they receive the most attention.

### Critical area protection through vegetated buffers

The standard approach to protection of these fish and wildlife habitat conservation areas, such as streams, is to prohibit or limit land uses adjacent to the critical area. These limited use areas, known as buffers, vary in width depending on the habitat quality. For example, in Skagit County’s critical areas ordinance for non-ag activities, the required standard buffer distances range from 50 feet for seasonal and non-fish streams up to 200 feet for shorelines of the state.

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<sup>25</sup> RCW 36.70A.060.

<sup>26</sup> RCW 36.70A.170.

<sup>27</sup> RCW 36.70A.172.

<sup>28</sup> But specifically excludes “such artificial features or constructs as irrigation delivery systems, irrigation infrastructure, irrigation canals, or drainage ditches that lie within the boundaries of and are maintained by a port district or an irrigation district or company.” RCW 36.70A.030(5).

<sup>29</sup> Washington State Department of Ecology. “[Agricultural-related water quality risks.](#)” Updated July 2012.

## Merits of streamside vegetation

There are several important reasons to maintain streamside vegetation:<sup>30</sup>

1. **Recruitment of Large Woody Debris (LWD) to the Stream.** LWD creates habitat within the stream channel necessary to maintain salmon/trout and other aquatic organisms' productive capacity and species diversity. Trees, large branches, and root wads that fall into a stream create refuge pools for salmon that allow them to forage for food, save energy, and gain protection from predators. The pools also serve as thermal refuges in streams with elevated temperatures. LWD also helps sort stream gravels necessary for spawning salmonids.
2. **Shade.** Shading by the forest canopy maintains cooler water temperatures and influences the availability of oxygen for salmon/trout and other aquatic organisms. The recruitment of particulate organic matter (POM) is another important function riparian zones provide. Detrital organic matter such as leaves, cones, and needle litter are food sources for aquatic and terrestrial consumers important to aquatic food chains.
3. **Bank Integrity (Root Reinforcement).** Bank integrity helps maintain habitat quality and water quality by reducing bank erosion and providing habitat structure and in-stream hiding cover for salmon/trout and other aquatic organisms. Decreased erosion helps to reduce the amount of fine sediment in the channel which can clog salmonid spawning gravel reducing aeration of buried eggs and ultimately leads to decreased survival of eggs.
4. **Runoff Filtration.** Filtration of nutrients and sediments in runoff (surface and shallow subsurface flows) helps maintain water quality. Riparian vegetation can filter pollutants such as sediments, nutrients, road salt, and agricultural chemicals from upland areas that enter into the stream habitat.
5. **Wildlife Habitat.** Functional wildlife habitat for riparian-dependent species is based on sufficient amounts of riparian vegetation to provide protection for nesting and feeding. Riparian areas also provide critical wildlife habitat for aquatic habitat modifiers such as beaver and many other terrestrial predators or scavengers associated with salmonid populations.

## The Evolution of Skagit County's ag-CAO

### In the Beginning

Skagit County adopted its first critical areas ordinance that included protection of anadromous fish habitat on May 13, 1996.<sup>31</sup> This first effort included an exemption for "existing and on-going agricultural resource land management operations including related development and activities which do not result in expansion into a critical area or its buffer or do not result in an increase in impact to a critical area beyond that which has been occurring prior to the effective date of this ordinance."<sup>32</sup> On appeal, the Growth

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<sup>30</sup> These purposes of riparian buffers are briefly codified in Skagit County's critical areas code at SCC 14.24.530(1)(a). Function descriptions are taken from Erica M. Capuana, "Assessment of Riparian Conditions in the Nooksack River Basin with the Combination of LIDAR, Multi-Spectral Imagery, and GIS," Master's thesis, November 2013.

<sup>31</sup> Ordinance 16156.

<sup>32</sup> Former SCC 14.06.090(2).

Management Hearings Board found that the exemption for agricultural activities was too broad and failed to comply with GMA.<sup>33</sup> The County tried again, but in its next ruling, the Growth Board found the County ordinance still had deficiencies and directed the County, to among other things, adopt benchmarks, timelines, and monitoring to ensure that the County’s program would actually protect critical areas.<sup>34</sup>

## The Millennial Effort

In 2000, through [Ordinance 18069](#), Skagit County adopted an extensive, detailed, science-based program of incentivized, planted, and managed buffers and adaptive management. Landowners in Ag-NRL and Rural Resource-NRL zoned lands adjacent to streams had four options to institute buffers adjacent to those streams. Within one year of the effective date of the ordinance, a landowner would need to:

- sign up with CREP, and submit documentation to the County, and receive a bonus payment from the County for enrollment;
- obtain a site-specific conservation farm management plan, approved by the County, that included riparian buffers and best management practices;
- develop a Custom Buffer Plan (CBP) that might be a combination of the other options, and demonstrate that the CBP met best-available science; OR
- enroll in the Managed Agricultural Riparian Plan (MARP), a new County program that required planting and maintaining a 50-foot forested riparian buffer and a 25-foot vegetated filter strip, included an adaptive monitoring program to ensure the MARP worked to preserve or enhance fish habitat, and included lease payments to the property owner for at least five years to compensate the property owner for the land taken out of production.

Landowners that did not choose one of these options within one year would be subject to the standard buffer requirements. The program enjoyed substantial interest and many initial enrollments during its brief history, but ultimately was not implemented. As the Growth Management Hearings Board put it:

*Two years ago we said the MARP framework looked sound and found it in compliance. County staff and the [Science Advisory Panel] then worked very hard to put the required “flesh” on the plan. The Tribe succeeded in getting the MARP framework found noncompliant in Superior Court. The County then had to start all over again to develop a plan that would comply...If the MARP had not been taken to Court and another of the options still being challenged by the Tribe in Court, the County would now be implementing the MARP rather than starting over again.*<sup>35</sup>

<sup>33</sup> *Friends of Skagit County, et al., v. Skagit County*, No. 96-2-0025, Final Decision and Order (January 3, 1997) at 9, available at <http://www.gmhb.wa.gov/LoadDocument.aspx?did=816>.

<sup>34</sup> *Friends of Skagit County, et al., v. Skagit County*, No. 96-2-0025, Compliance Hearing Order (September 16, 1998) at 30, available at <http://www.gmhb.wa.gov/LoadDocument.aspx?did=818>.

<sup>35</sup> *Swinomish Indian Tribal Community v. Skagit County*, No. 02-2-0012c, Final Decision and Order and Compliance Hearing Order (December 30, 2002) at 21, available at [www.gmhb.wa.gov/LoadDocument.aspx?did=502](http://www.gmhb.wa.gov/LoadDocument.aspx?did=502).

Even in 2002, the Growth Management Hearings Board was tiring of the litigation:

*We ask all the parties to put down their weapons and work together to develop and implement a plan which meets the GMA obligations to protect critical areas and fisheries and also the GMA obligations to conserve agricultural lands of long term commercial significance and the farmers who work those lands.*<sup>36</sup>

## The No Harm Standard

In June 2003, the County adopted [Ordinance O20030020](#), which formed the basis for the ag-critical areas regulations the County has had in place since 2003. The ordinance:

- exempts “ongoing agriculture” from the requirement to observe riparian setbacks or plant buffers where none currently exist;
- requires a minimum standard of stewardship of riparian areas via compliance with a specified set of “watercourse protection measures,” i.e., bright-line rules based on NRCS practice standards for a minimum standard of stewardship of riparian areas.

After appeal by the Swinomish Tribe, the Growth Board found the County’s new ordinance largely compliant. The Growth Board noted that:

*[T]he record demonstrates that no other jurisdiction in the state has been required to go to the lengths that Skagit County has been forced to go to study, document and impose local regulations upon existing agricultural activity.*<sup>37</sup>

## MONITORING

Because the County’s no-harm ordinance is not *precautionary*, the Growth Board required the County to create a monitoring and adaptive management program for its Ag-CAO.<sup>38</sup> The monitoring program consists of two parts:<sup>39</sup>

- the [Water Quality Monitoring Program](#), intended to determine stream water quality conditions and trends; and
- the [Salmon Habitat Monitoring Program](#), intended to measure physical streams conditions important to salmon habitat.

Both programs, which include sampling sites both in agricultural areas and non-agricultural areas, have quality assurance project plans approved by the US Environmental Protection Agency. The programs were

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<sup>36</sup> Id, at 22.

<sup>37</sup> *Swinomish Indian Tribal Community v. Skagit County*, No. 02-2-0012c, Final Decision and Order and Compliance Hearing Order (December 8, 2003) at 7, available at [www.gmhb.wa.gov/LoadDocument.aspx?did=469](http://www.gmhb.wa.gov/LoadDocument.aspx?did=469).

<sup>38</sup> WAC 365-195-920 required “an effective adaptive management program” if a non-precautionary approach is taken. Id at 46.

<sup>39</sup> Initially adopted by [Resolution R20030211](#) (2003); later revised by [Resolution R20040211](#) (2011).

very good at their task of evaluating water quality trends but were not well-suited to providing useful data for an adaptive management program, which the County did not develop. The Growth Board found the Ag-CAO non-compliant principally because of this lack of effective adaptive management:

*Fundamentally, the program lacks benchmarks and triggers for corrective action and the ability to detect the cause of any deterioration in the existing functions and values of [fish and wildlife habitat conservation areas] in a timely way so that the current protection measures could be adjusted to provide adequate protection of fish habitat.<sup>40</sup>*

## The Road to Ruckelshaus

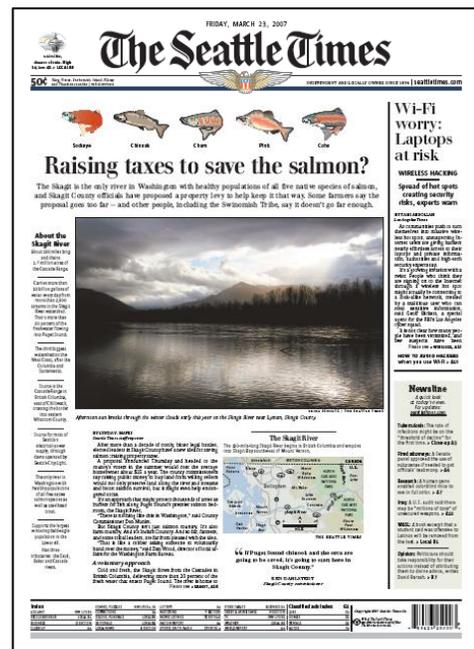
### INITIATIVE 933

In 2006, driven partly by the statewide controversy over the impact of critical areas protection on agricultural lands, the Washington State Farm Bureau filed a state initiative that would have required government to pay compensation to property owners for the costs of property regulation.<sup>41</sup>

I-933 did not enjoy much success in Skagit County. A prominent Skagit farmer appeared in television commercials for the “no” campaign and both Skagitonians to Preserve Farmland and the Mount Vernon-based Western Washington Agricultural Association endorsed the opposition.<sup>42</sup> Initiative 933 was soundly defeated in the state, with 63% of voters casting ballots opposed. But no county voted more strongly against it than Skagit County, where 71% voted against.

### SALMON HERITAGE PROGRAM

In March 2007, Skagit County unveiled a proposal for a comprehensive program to acquire conservation easements along key salmon streams in agricultural areas. The effort, known as the **Salmon Heritage Program**, was modeled on the County’s successful Farmland Legacy program, and was intended to resolve the long-running controversy over riparian habitat on actively farmed land. The Salmon Heritage Program planned to raise funds through a countywide ballot measure, pay fair market value for riparian habitat easements, and jointly manage that habitat in cooperation with the tribal-led Skagit River System Cooperative. A 2005 Elway poll found 7 in 10 county residents would be “willing to



<sup>40</sup> *Swinomish Indian Tribal Community v. Skagit County*, No. 02-2-0012c, Compliance Order – Adaptive Management (January 13, 2005) at 2, available at [www.gmhba.wa.gov/LoadDocument.aspx?did=274](http://www.gmhba.wa.gov/LoadDocument.aspx?did=274).

<sup>41</sup> Eric Pryne, “I-933 finds support lukewarm,” *Seattle Times* (August 27, 2006). Eric Laschever, “Property Rights Post I-933: Critical issues—and areas—still merit attention,” *Seattle Times* (December 6, 2006).

<sup>42</sup> “Family farmers oppose Initiative 933,” *Cascadia Advocate*, September 18, 2006.

pay a dollar or two per month in property taxes” to “help preserve fish and wildlife.”

“I-933 went too far, and was wrong for Skagit County. But the farmers who supported I-933 had a valid point, and we're directly responding to their concerns,” Skagit County Commissioner Ken Dahlstedt said at the time. “The Salmon Heritage Program will help meet the County’s obligation to protect salmon and water quality, but at the same time will ensure farmers aren't bearing the burden alone. The Salmon Heritage Program actually does more for agriculture than I-933 would have done. It’s the right thing to do for farmers, for salmon, and for the future of our county.”<sup>43</sup>

The program was unveiled to great fanfare, including a front-page article in the *Seattle Times*.<sup>44</sup> The initial public reaction to the Salmon Heritage Program was positive, and polling data suggested broad support for habitat acquisition as a means of balancing the environment and property rights. However, the notion of raising county property taxes as the sole funding source for such a program proved considerably less popular; the Skagit watershed is a regional asset that produces regional benefits, and the cost of restoration ought to be shared regionally. In a recessionary climate marked by several failed school district bond measures, the County put pursuit of the program on hold when the Legislature intervened in the critical areas dispute.

### CALLING A TIMEOUT

The hard-fought campaign for Initiative 933 also struck a chord within the Legislature. In April 2007, the Legislature imposed a three-year timeout on changes to critical areas ordinances as applied to agricultural activities, and tasking the William D. Ruckelshaus Center with leading a stakeholder process to develop policy options for resolution of the longstanding conflict.<sup>45</sup>

### THE SUPREME COURT DECISION

While the Ruckelshaus Center geared up for the policy debate, in September 2007, the Supreme Court finally issued its decision on the long-running litigation between the County and the Swinomish Tribe. Although widely hailed as a victory for the County, the results were actually quite mixed. The Court found that the GMA requirement to “protect” critical areas means that the County need only maintain the status quo, and did not require the County to improve the conditions of critical areas to some enhanced or prior condition. The Court also determined that the County had the authority to protect critical areas through a non-precautionary approach rather than impose mandatory buffers. But in doing so, the County has an obligation to create a monitoring and adaptive management program that ensures that its approach achieves the standard of protection—and the Court found that the County’s program lacked the essential benchmarks and triggers for action to ensure protection is achieved:

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<sup>43</sup> “Skagit County Commissioners Announce Plan to Create Skagit County Salmon Heritage Program,” Skagit County Press Release, March 21, 2007.

<sup>44</sup> Lynda V. Mapes, *Raising taxes to save salmon?*, *Seattle Times*, Mar. 23, 2007, at A1.

<sup>45</sup> *SSB 5248* (2007).

*...under GMA regulations, local governments must either be certain that their critical areas regulations will prevent harm or be prepared to recognize and respond effectively to any unforeseen harm that arises. In this respect, adaptive management is the second part of the process initiated by adequate monitoring.<sup>46</sup>*

## The Ruckelshaus Negotiations

The Supreme Court decision arrived soon after the Ruckelshaus Center began its policy analysis, and changed the dynamics of that conversation. The first year was devoted to the formation of an advisory committee composed of agricultural, environmental, county, and tribal interests; development of operating ground rules; and an exchange of issues, concerns, and ideas among the participants. Faculty from UW and WSU and staff of the Center also initiated fact finding on the topics specified by the original legislation: critical areas ordinances, the Conservation Reserve Enhancement Program, conservation easements, buffer widths, requirements of federally approved salmon recovery plans, the impact of agriculture on Puget Sound recovery efforts, and compliance with water quality requirements.

In 2008, the advisory committee reviewed several presentations and draft reports on the fact-finding topics. Meetings in 2009 were largely devoted to crafting the outline of an agreement that would focus and maximize voluntary approaches for agricultural stewardship while protecting and enhancing ecological functions that support clean water and productive habitat. Although at one point the proposal was evolving toward designating local watershed councils or conservation districts as the implementation groups, Skagit County argued that counties, as the entities on the hook for achieving success, needed to be able to determine how best to implement the program.

During the 2010 legislative session, representatives of the agriculture, environmental, and county caucuses testified in support of legislation extending the process, and the extension (SSB 6520) was signed into law. The Center embarked on a new approach for 2010, creating three work groups to focus on key unresolved issues:

- The accountability and privacy work group worked on procedures to ensure that voluntary stewardship efforts would be reviewed for adequacy and verified for completion. At the same time, the work group recognized that landowner privacy and confidentiality are an essential element of voluntary participation;
- Consequences to be used if desired outcomes are not achieved through voluntary programs or approaches; and
- Program implementation.

The Center also coordinated discussions with appropriate state agencies. The Center's final report was completed in October 2010.

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<sup>46</sup> *Swinomish Indian Tribal Community v Growth Management Hearings Board*, at 32.

## ESHB 1886: THE VOLUNTARY STEWARDSHIP PROGRAM

In April 2011, the Legislature adopted [Engrossed Substitute House Bill 1886](#), creating the Voluntary Stewardship Program as an *alternative approach* within GMA to the requirement to protect “critical areas in areas used for agricultural activities through development regulations...” and to achieve the twin goals of habitat protection and agricultural land preservation.<sup>47</sup> If the participating watershed is achieving its goals and benchmarks, the county is not required to update development regulations to protect critical areas as they specifically apply to agricultural activities.

## Skagit County Enrollment in VSP

The VSP legislation set a deadline of January 22, 2012, for interested counties to enroll. In making that decision to enroll and designate priority watersheds, the statute required the County to consider:

- (a) The role of farming within the watershed, including the number and acreage of farms, the economic value of crops and livestock, and the risk of the conversion of farmland;*
- (b) The importance of salmonid resources in the watershed;*
- (c) An evaluation of the biological diversity of wildlife species and their habitats in the geographic region including their significance and vulnerability;*
- (d) The presence of leadership within the watershed that is representative and inclusive of the interests in the watershed;*
- (e) Integration of regional watershed strategies, including the availability of a data and scientific review structure related to all types of critical areas;*
- (f) The presence of a local watershed group that is willing and capable of overseeing a successful program, and that has the operational structures to administer the program effectively, including professional technical assistance staff, and monitoring and adaptive management structures; and*
- (g) The overall likelihood of completing a successful program in the watershed.<sup>48</sup>*

In August 2011, the Board of County Commissioners adopted Resolution [R20110239](#), setting the stage for consideration of enrollment in VSP. Following that resolution, staff prepared an analysis of the statutorily required considerations<sup>49</sup> and drafted an ordinance that proposed minor changes to the County’s ag-CAO, enrolled all of the County’s watersheds in VSP, and nominated both the Skagit and Samish as priority watersheds. After thorough review and recommendation by both the County’s Agricultural Advisory Board and the County Planning Commission, the Board adopted the ordinance on December 19, 2011.<sup>50</sup>

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<sup>47</sup> RCW 36.70A.710(1).

<sup>48</sup> RCW 36.70A.710(4).

<sup>49</sup> *Evaluating Enrollment in the ESHB 1886 Voluntary Stewardship Program: An Analysis of Critical Factors, Costs, and Benefits*, Skagit County, December 16, 2011.

<sup>50</sup> [Ordinance O20110013](#) Enrolling County in VSP and modifying Ag-CAO (December 19, 2011).

After enrollment in VSP, the County moved to dismiss the litigation pending before the Growth Management Hearings Board. The GMHB did so on March 22, 2012.

### **SELF-FUNDING**

The VSP legislation does not obligate counties to being implementation of VSP until the state provides funding. After three years of waiting for that funding, and after conferring with tribes and other interested stakeholders, Skagit County decided in 2014 to initiate County participation in VSP even without state funding.<sup>51</sup>

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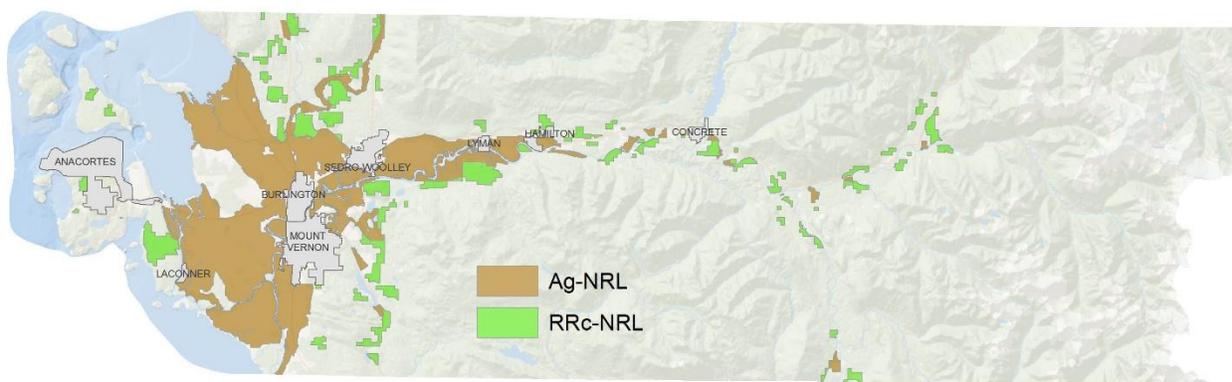
<sup>51</sup> Resolution R20140287 (September 16, 2014).

# Critical Areas and VSP

The Voluntary Stewardship Program statute is intended as “**an alternative** to protecting critical areas in areas used for agricultural activities through development regulations adopted under RCW 36.70A.060”<sup>52</sup> but it may “**incorporate ... any existing development regulations** relied upon to achieve the goals and benchmarks for protection...”<sup>53</sup> This chapter is intended to describe the relationship between Skagit County’s VSP work plan and the County’s existing development regulations.

## Intersect Areas

This work plan applies to the intersection of agriculture and critical areas in unincorporated areas of Skagit County. While some agricultural activities occur throughout the county, the vast majority of agricultural activities occurs in the Agricultural (Ag-NRL) and Rural Resource (RRc-NRL) zones shown below. The Rural Resource zone also includes mineral resource and forestry activities.



## Wetlands

The Ag-NRL zone has been extensively diked and drained. Drainage is critical for agricultural activity in the Skagit Delta, and federal Swampbuster regulations encourage agriculture to continuously maintain drainage to prevent the appearance of wetlands.

## Critical Aquifer Recharge Areas

The entirety of Skagit County is designated a Critical Aquifer Recharge Area.<sup>54</sup> Relevant to ag, Category I areas (which receive the highest level of protection) include wellhead protection areas and seawater intrusion areas.

<sup>52</sup> RCW 36.70A.710(1)(a).

<sup>53</sup> RCW 36.70A.720(1)(h).

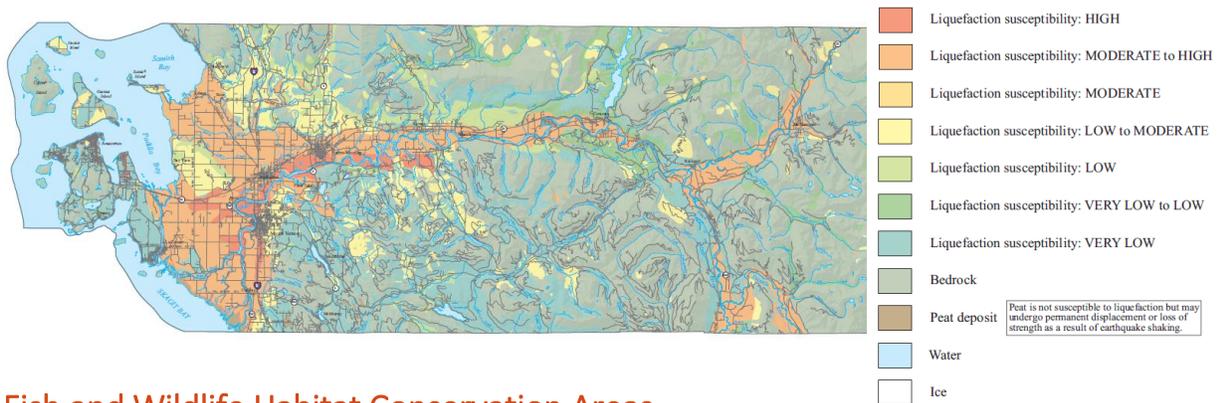
<sup>54</sup> SCC 14.24.310(1).

## Frequently Flooded Areas

Almost the entirety of the Ag-NRL and RRc-NRL zones is in the 100-year floodplain.

## Geologically Hazardous Areas

Because most of the Ag-NRL and RRc-NRL zones are in diked and drained areas, the major geological hazard within areas of ag activities are those within a high liquefaction susceptibility as indicated on the Liquefaction Susceptibility Map of Skagit County issued by the Washington Department of Natural Resources.<sup>55</sup> On the map below, dark orange areas are high liquefaction susceptibility, which is a small portion of the major ag areas.



## Fish and Wildlife Habitat Conservation Areas

Fish and Wildlife Habitat Conservation Areas are defined in SCC 14.04.020. The work plan applies to all the listed habitat types except:

- **Isolated, artificial watercourses** that have no channelized surface hydraulic connection or no piped hydraulic connection between the artificial watercourse and any natural or modified natural watercourse or any salt water.<sup>56</sup> “Artificial watercourse” means “ditches and other water conveyance systems, not constructed from natural watercourses, which are artificially constructed and actively maintained for irrigation and drainage. Artificial watercourses include lateral field ditches used to drain farmland where the ditch did not replace a natural watercourse.”<sup>57</sup>
- **Artificial constructs such as drainage ditches** within the boundaries of, and maintained by, an irrigation district.<sup>58</sup> For the purpose of VSP, “maintained by” means periodic conveyance improvements, and the exemption only applies to the portion of the ditch within the boundary of the irrigation district.

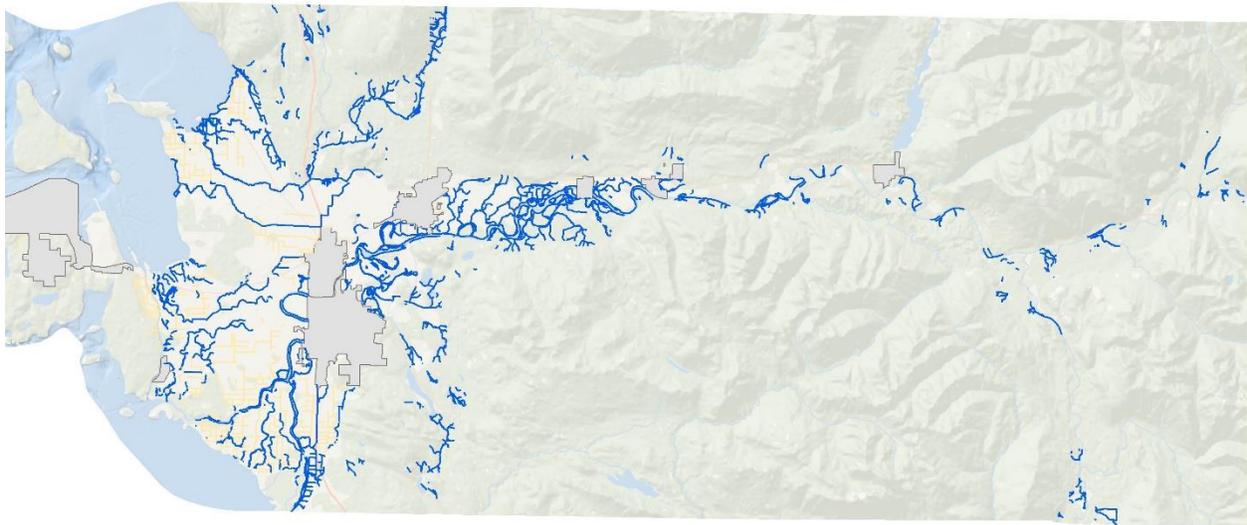
<sup>55</sup> SCC 14.24.410(3)(a), available at [www.dnr.wa.gov/programs-and-services/geology/publications-and-data/publications-and-maps#geologic-hazard-maps.10](http://www.dnr.wa.gov/programs-and-services/geology/publications-and-data/publications-and-maps#geologic-hazard-maps.10).

<sup>56</sup> SCC 14.24.120(2)(a).

<sup>57</sup> SCC 14.04.020.

<sup>58</sup> RCW 36.70A.030(5).

Given these constraints (zoning, water types, and artificial watercourses), the blue watercourses on the map below will be subject to VSP. The yellow watercourses are artificial and not subject to VSP.



The artificial watercourses mapping for the Skagit Delta is based on the Artificial Watercourse (yellow) classification used in the map in Figure 2-2 of the [Skagit Delta Tidegate and Fish Initiative \(TFI\) agreement](#). The TFI map was based on Skagit County hydrology data so the location information matches our current data.

Skagit County has been maintaining its own hydrology data since 2002. This data originated from Department of Natural Resources but Skagit County needed a way to update the information in a timely manner for salmon-related projects. The data used in this work plan is the most current version of this data. In the last year, the County has partnered with Ecology to create a single unified hydrology dataset called the National Hydrology Dataset (NHD). At the time of this writing, Ecology has integrated most of the County's hydrology data updates into the NHD. The County's goal for VSP is to switch to the NHD hydro data before work plan implementation begins, however the NHD data does not currently include DNR stream type classifications, making it an imperfect substitute for the County's own datasets.

## Incorporation of Existing Regulations

Under this work plan, Skagit County will achieve protection and enhancement of critical areas in areas of agricultural activity through a combination of our existing critical areas rules and new, voluntary incentive programs. The VSP statute clearly allows for a County to use mandatory development regulations alongside the voluntary programs prescribed by the County's VSP work plan. The VSP legislation provides that the work plan must:

*Incorporate ... any existing development regulations relied upon to achieve the goals and benchmarks for protection,<sup>59</sup>*

<sup>59</sup> RCW 36.70A.720(1)(h).

and provides that the County may adopt further development regulations for agricultural activities if provided by the work plan:

*(b) A county that has made the election under RCW 36.70A.710(1) may only adopt or amend development regulations to protect critical areas as they specifically apply to agricultural activities in a participating watershed if:*

*(i) A work plan has been approved for that watershed in accordance with RCW 36.70A.725;*

*(ii) The local watershed group for that watershed has requested the county to adopt or amend development regulations as part of a work plan developed under RCW 36.70A.720;<sup>60</sup>*

Skagit County hereby incorporates by reference the following county code chapters into its work plan:

- Skagit County Code Chapter 14.24 Critical Areas
- Skagit County Code Chapter 14.34 Flood Damage Prevention

Skagit County will update these chapters as required by state and federal requirements (e.g., Skagit County has yet to adopt its required updates to its Shoreline Master Program which incorporates the critical areas code, and the Federal Emergency Management Agency has indicated we must revise our flood rules for compliance with the National Flood Insurance Program) but Skagit County is not required to update its critical areas regulations as they specifically apply to agricultural activity.<sup>61</sup> Skagit County may also amend these chapters as they specifically apply to agricultural activity if requested by the watershed group as part of adaptive management to help ensure protection.

## Skagit County's CAO

Unlike many other counties that completely exempt agriculture from their critical areas regulations, Skagit County's existing Critical Areas Ordinance, including the provisions for Ongoing Agriculture, already imposes restrictions on agriculture that will help the County achieve our protection benchmarks. These provisions, which have been in effect for nearly 15 years, are **accepted and embraced by local agriculture** as a reasonable compromise solution to the challenge of protecting critical areas in area of agricultural activity.

### Standard Fish and Wildlife Habitat Rules

The County's standard CAO for Fish and Wildlife Habitat Conservation Areas (which is applicable to activities **other than** ongoing ag in the Ag-NRL and RRc-NRL zones) requires buffers that meet or exceeds the standards articulated in the NOAA NMFS Interim Buffer Matrix. The table below shows the County's required standard buffer distances for different stream types, alongside the equivalent widths required

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<sup>60</sup> RCW 36.70A.130(8).

<sup>61</sup> RCW 36.70A.130(8)(b).

by the Interim NOAA Buffer Matrix.<sup>62</sup> The old numeric DNR water type codes are provided for easy reference.

DNR Water Type	Old Type	Brief Description <sup>63</sup>	Skagit Standard CAO Buffer <sup>64</sup>	Interim NOAA Buffer Matrix Min Width
Shorelines (S)	1	Streams and waterbodies that are designated “shorelines of the state” as defined in RCW 90.58.030.	200 ft	100 ft
Fish (F)	2 or 3	Streams and waterbodies that are known to be used by fish, or meet the physical criteria to be potentially used by fish. Fish streams may or may not have flowing water all year; they may be perennial or seasonal.	150 ft if > 5 ft wide 100 ft if ≤ 5 ft wide	100 ft
Non-Fish Perennial (Np)	4	Streams that have flow year round and may have spatially intermittent dry reaches downstream of perennial flow. Type Np streams do not meet the physical criteria of a Type F stream. This also includes streams that have been proven not to contain fish.	50 ft	50 ft
Non-Fish Seasonal (Ns)	5	Streams that do not have surface flow during at least some portion of the year, and do not meet the physical criteria of a Type F stream.	50 ft	35 ft

## Watercourse Protection Measures

### EXISTING RULES

Skagit County’s existing ag-CAO uses mandatory “watercourse protection measures” (bright-line rules designed to protect streams and wildlife habitat from pollution, runoff, and degradation)<sup>65</sup> to ensure a minimum level of stewardship and protection of critical areas functions and values in areas of ongoing agricultural activity. The County may propose clarifications to these rules if necessary to ensure readability and enforceability.

#### *Livestock*

- **Keep livestock out of the water.** Livestock access to watercourses must be limited to only the amount of time necessary for watering or crossing. Watering facilities or access must be constructed consistent with NRCS standards. NRCS does not allow water gaps on impaired streams.

<sup>62</sup> As expressed in Table L-1 in the Department of Ecology’s 2015 funding guidelines, available at <https://fortress.wa.gov/ecy/publications/documents/1310041.pdf>.

<sup>63</sup> The descriptions of each water type are based on the definitions in [WAC 222-16-030](#).

<sup>64</sup> SCC 14.24.530(1)(c).

<sup>65</sup> See SCC 14.24.120(4).

- **Keep waste or sediment out of the water.** Conduct livestock or dairy operations without contributing waste or sediment in violation of state water quality standards.
- **Keep your pasture vegetated.** Maintain enough cover sufficient to avoid contributing sediment to watercourses. Avoid overgrazing near waterways.

#### *Nutrients and Farm Chemicals*

- **Keep manure out of the water.** Do not put manure anywhere it is likely to be carried into a watercourse. Between October 31 and March 1, do not spread manure within 50 feet of a watercourse, or anywhere on bare ground (unless permitted by a dairy nutrient management plan or other limited conditions).
- **Keep nutrient levels appropriate.** Don't over apply nutrients, so that the amount that passes through the soil below where they are used by plants is minimized.
- Apply chemicals consistent with all label requirements.

#### *Soil Erosion and Sediment Control*

- Design roads and structures to avoid contributing sediment.
- Keep agricultural equipment from causing bank sloughing or other failures. Don't operate equipment too close to the watercourse.
- Wherever possible, construct V-ditching only to drain into watercourses that don't contain fish. Always avoid contributing excess amounts of sediment to the watercourse.

#### *Agricultural Drainage Infrastructure*

- **Conduct regular maintenance between June 15 and October 31.** This work window is best for fish. Some exceptions may apply.
- **Keep excavation spoils away from the bank.** Prevent bank failures and ensure drainage from spoils won't contribute sediment.
- **Ensure mowing doesn't disturb soil or sediments.** Ensure that the cut vegetation does not block water flow.

# Goals & Benchmarks

## Definitions

The VSP legislation requires that the work plan include “goals and benchmarks”—metrics by which the work plan will be evaluated for success (see Timelines for Reporting and Review on page 57).

*Develop goals for participation by agricultural operators conducting commercial and noncommercial agricultural activities in the watershed necessary to meet the protection and enhancement benchmarks of the work plan;*<sup>66</sup>

Consistent with the goals, the work plan must:

*Create measurable benchmarks that, within ten years after the receipt of funding, are designed to result in (i) the protection of critical area functions and values and (ii) the enhancement of critical area functions and values through voluntary, incentive-based measures.*<sup>67</sup>

The VSP benchmarks for **protection** and **enhancement** have different consequences for failures to achieve the different types. If the County fails to achieve protection, it must adapt to achieve those benchmarks on an approved timeline.<sup>68</sup> If the County fails to achieve enhancement, it must develop a plan to achieve the enhancement, but is not required to implement that plan until “funding is provided.”<sup>69</sup>

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<sup>66</sup> RCW 36.70A.720(1)(c).

<sup>67</sup> RCW 36.70A.720(1)(e).

<sup>68</sup> RCW 36.70A.720(2)(b)(iii).

<sup>69</sup> RCW 36.70a.720(2)(b)(iv).

## Participation

The work plan adopts the following goals for participation by agricultural operators in the subject area. Each participation metric will be achieved by July 1 of the noted year. Metrics are cumulative. Enrollment goals are based on historical enrollment data provided by the Natural Resource Stewardship Program, Conservation and Reserve Enhancement Program, Farmland Legacy Program, and the Skagit County Assessor.

Metric	2018	2019	2020	2021	2022
Enrollments in local voluntary enhancement programs (e.g. NRSP)	5	10	15	20	25
Enrollments in current use open space tax program	2	4	6	8	10
Enrollments in CREP, WRP, & other relevant federal programs	3	6	9	12	15
Protective easements	2	4	6	8	10

The participation metrics identified in the table above result in habitat enhancement or critical areas protections on the ground for wetlands, FWHCAs, and floodplain areas and are directly tied to this plan's protection and enhancement goals. For example, the County's Natural Resources Stewardship Program, fully described in Appendix 4, provides fencing, installs large woody debris, improves livestock crossings, and plants riparian vegetation. As another example, the County purchases easements from willing sellers through the Farmland Legacy Program, also more fully described in Appendix 4 and Voluntary Measures. These easements remove development rights from the floodplain, reducing flood risk, and also limit the amount of impervious surfaces that can be placed on that property. Therefore the protective easement metric is also specifically tied to this work plan's critical areas protection and enhancement goals. The current use open space tax program and the relevant federal programs listed in the participation metric table are also more fully described in Appendix 4 while incentivizing these programs are described in the Voluntary Measures section.

## Protection

The VSP legislation defines protection of critical areas as preventing "the degradation of functions and values existing as of July 22, 2011."<sup>70</sup> This work plan establishes the County's protection benchmarks consistent with that definition for the five types of critical areas. Adaptive Management triggers and responses are further described in Adaptive Management on page 59.

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<sup>70</sup> RCW 36.70A.703(8).

## Wetlands

<b>Goals</b>	Preserve and protect wetlands to prevent their continual loss and degradation. <sup>71</sup> No degradation below the statutory 2011 baseline.
<b>Applicable Regulations</b>	Intersect areas are protected by regulations including SCC 14.24.070(2) which requires any expansion of agriculture into a critical area or its buffer to comply with the substantive and procedural provisions of the critical areas code.
<b>Benchmarks</b>	Within the intersect areas, no net loss of wetlands or buffers existing as of July 22, 2011.
<b>Metrics</b>	Skagit County will use Ecology’s Wetlands Change Analysis, which it updates at five-year intervals, for a coarse evaluation of gain or loss of wetlands in the intersect areas.
<b>Trigger</b>	Within the intersect areas, loss of more than 10% of wetlands area due to agricultural activity.
<b>Response</b>	Confirm areas of identified loss through site visits; prioritize affected sites for voluntary incentive measures to improve wetland function; pursue code enforcement where code violations have occurred.

## Critical Aquifer Recharge Areas

<b>Goals</b>	Protect aquifer recharge areas, and well-head areas, ground and surface water quality and quantity for supplying all needs within Skagit County, including potable water for human use. <sup>72</sup> No degradation below the statutory 2011 baseline.
<b>Applicable Regulations</b>	Intersect areas are protected by regulations including state and federal pesticide regulations and the County’s agricultural watercourse protection measures found in SCC 14.24.120(4)(b) that require agricultural operators to apply farm chemicals with all requirements stated on the chemical container labels and limit application of crop nutrients to agronomic rates intended for that particular crop.
<b>Benchmarks</b>	Within the intersect areas, no degradation below the statutory 2011 baseline of Group A water system water quality.
<b>Metrics</b>	Skagit County will review water quality parameters directly applicable to agricultural activities (e.g., synthetic organic contaminants including pesticides and herbicides) from Group A water system test results (e.g., those conducted for annual EPA-required Consumer Confidence Reports <sup>73</sup> ).
<b>Trigger</b>	Statistically significant degradation in metric since statutory 2011 baseline.
<b>Response</b>	Confirm contamination due to agricultural activity; involve Department of Agriculture to identify agricultural operators within area of groundwater influence on affected wells.

<sup>71</sup> Skagit County Comprehensive Plan Goal 5A.

<sup>72</sup> Skagit County Comprehensive Plan Goal 5A.

<sup>73</sup> 40 CFR 141.

## Frequently Flooded Areas

<b>Goals</b>	Protect hydrologic functions and reduce the potential for physical injury and property damage associated with flooding. <sup>74</sup> No degradation below the statutory 2011 baseline.
<b>Applicable Regulations</b>	Intersect areas are protected by regulations including the County’s flood damage prevention regulations found in SCC Chapter 14.34. Agricultural activities are allowed in frequently flooded areas, but new land clearing or new structures must follow rules adopted to ensure the County’s compliance with the National Flood Insurance Program (“NFIP”), and by extension, the National Marine Fisheries Service biological opinion for NFIP compliance with the Endangered Species Act. The NFIP requires the County to have a regulatory approach to comply with these mandates.
<b>Benchmarks</b>	Within the intersect areas, no new structures within the floodplain that are not compliant with the County’s flood code, and no development that impedes floodplain habitat function inconsistent with that allowed by the flood code.
<b>Metrics</b>	The County’s continued participation in the NFIP requires ongoing monitoring by the Department of Ecology through their Community Rating System and Community Assistance Visits (“CAV”) and requires correction of any identified non-compliance. The County’s metric will be number of unresolved issues in the intersect area identified by each CAV.
<b>Trigger</b>	Any unresolved issues in the intersect areas identified by each CAV.
<b>Response</b>	Perform and prioritize additional outreach to farms that have similar characteristics to identified CAV issues; pursue code enforcement where code violations have occurred.

## Geologically Hazardous Areas

<b>Goals</b>	Minimize risk to life, property, infrastructure, and resources caused by disrupting geologically hazardous areas or by locating development in areas subject to naturally hazardous geologic processes. <sup>75</sup> No degradation below the statutory 2011 baseline.
<b>Applicable Regulations</b>	Intersect areas are protected by regulations including the County’s agricultural watercourse protection measures for soil erosion and sediment control management found in SCC 14.24.120(4)(c).
<b>Benchmarks</b>	Within the intersect areas, all new ag structures must comply with regulations for seismic hazard areas, e.g., soil liquefaction susceptibility.
<b>Metrics</b>	Number of permits issued in the intersect areas that achieve benchmark.
<b>Trigger</b>	Within the intersect areas, any failure to address seismic hazard regulations through permit conditions.
<b>Response</b>	Pursue code enforcement where permit conditions have been violated.

## Fish and Wildlife Habitat Conservation Areas (FWHCAs)

<b>Goals</b>	Protect, restore where practical, and enhance fish and wildlife populations and their associated habitats. <sup>76</sup> No degradation below the statutory 2011 baseline.
<b>Applicable Regulations</b>	Intersect areas are protected by regulations including the County’s Critical Areas Ordinance for Ongoing Agriculture (SCC 14.24.120) and its watercourse protection measures.

<sup>74</sup> Skagit County Comprehensive Plan Goal 5A.

<sup>75</sup> Skagit County Comprehensive Plan Goal 5A.

<sup>76</sup> Skagit County Comprehensive Plan Goal 5A.

<b>Benchmarks</b>	Within the intersect areas, no net loss of riparian buffer existing as of July 22, 2011, within the standard distances prescribed for each water type.
<b>Metrics</b>	Acres of riparian buffer within the standard distances prescribed for each water type. See discussion below.
<b>Trigger</b>	Any loss of riparian buffer within the intersect areas due to agricultural activities.
<b>Response</b>	Perform and prioritize additional incentive measures within the basin where loss has occurred; pursue code enforcement where code violations have occurred.

The focus in the agriculture/critical areas debates in Skagit County has always been on Fish and Wildlife Habitat Critical Areas, which Skagit County protects through its standard Critical Areas Ordinance for activities other than ongoing agriculture, and through its Ag-Critical Areas Ordinance for ongoing agricultural activities.

The County’s existing ag-CAO defines the “functions and values” of FWHCAs to mean water quality, large woody debris, riparian buffer characteristics and width, and channel morphological characteristics (i.e., channel complexity).<sup>77</sup> The County’s standard CAO describes how riparian buffers, which are the standard prescription for how to protect watercourses and riparian areas, provide recruitment of large woody debris to the stream, shade, bank integrity, runoff filtration, and wildlife habitat.<sup>78</sup>

**Generally, “protection” is achieved when the amount of vegetated buffer adjacent to applicable watercourses is maintained at, or improves from, its July 22, 2011, baseline levels.**

It is impractical or impossible to measure and track all these functions and values directly—especially water quality parameters—across the substantial geographic scope of the work plan. The work plan therefore makes the assumption (as the standard CAO does), that vegetated riparian buffers provide these functions and values. The work plan defines the amount of shrub and forest buffer as a proxy for all the FWHCA functions and values.

After work plan approval, the County will establish baseline measurements based on its aerial photography from March-April 2011.<sup>79</sup> Baselines will be measured for each stream basin at the standard buffer distance for each stream type. The resulting measurements would be reflected in a table similar to that shown below. The table below was created using GIS methods. For each basin, streams were buffered at three different distances based on the stream type. In GIS, buffering refers to creating a polygon around a certain feature at a defined distance. In this case, Type S water bodies were buffered at 200 feet, Type F water bodies were buffered at 150 feet, and Type N water bodies were buffered at 50 feet. Within these study areas, landcover was put into three categories: Forest, Shrub, and Other.

<sup>77</sup> SCC 14.24.120(1)(a). For more on the intent of riparian buffers, see SCC 14.24.530(1)(a).

<sup>78</sup> SCC 14.24.520(2).

<sup>79</sup> The VSP legislation at RCW 36.70A.710(7)(b) prescribes a baseline date of July 22, 2011, but Skagit County’s aerial photography from 2011 was taken in March and April. Skagit County expects no significant discrepancy between the two dates.

Planting programs that have occurred within the study areas were recorded in the P category. These are separate from the landcover analysis and are based on input received from staff working on NRSP and CREP projects. This information was based on a 2008 riparian analysis and does not cover the entire area applicable to VSP; these numbers will be calculated specifically for VSP upon approval of the Work Plan.

**Riparian Buffer Widths and Characteristics (acres of Plantings, Shrub, and Forest)**

Sub-Basin	Type S within 200 ft			Type F within 150 ft			Type Ns and Np within 50 ft		
	P	S	F	P	S	F	P	S	F
Samish	110	103	312	40	66	451	3	8	64
Lower Skagit	42	69	330	9	17	48	0	4	7
Fisher Carpenter	1	0	0	0	1	57	0	0	2
Nookachamps	19	62	151	2	38	270	0	4	32
Middle Skagit	34	72	1,458	75	212	825	0	16	36
Upper Skagit	6	15	159	17	20	193	0	0	7
Sauk	2	5	63	8	25	109	0	1	3

The buffer measurements will include forest land cover and shrub land cover, but not grass. Forest land cover is preferred, but the work plan recognizes that shrub land cover provides important functions. While grass can provide runoff filtration, this work plan does not attempt to count grass as intact riparian buffer, because of measurement difficulties and limited enforcement ability to prevent conversion of grass filter strips to agricultural use. Where we know new plantings are present, we will track those metrics separately.

### FOCUS ON BUFFER WIDTHS AND CHARACTERISTICS

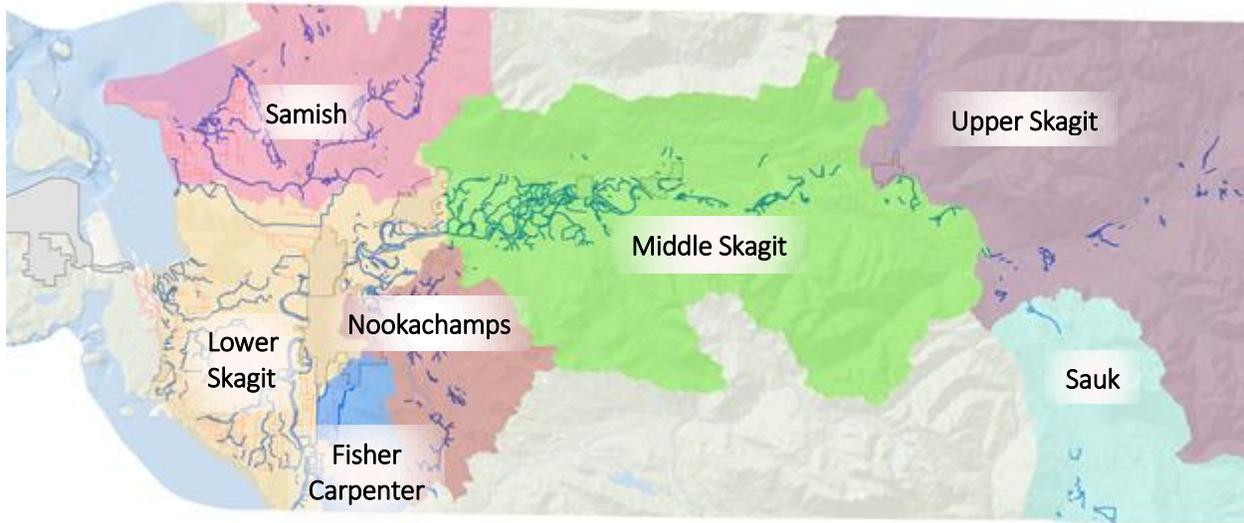
In order for VSP to be successful, metrics must be linked to identifiable problems and identifiable remedial actions. This work plan focuses on buffer widths and characteristics, which is the prescription used by standard critical areas ordinances for development, both because riparian buffers provide riparian habitat and because they improve water quality in adjacent streams.

The work plan does not attempt to include water quality parameters in the definition of protection. Skagit County’s experience with both its ag-CAO water quality monitoring program and the Clean Samish Initiative has demonstrated it is very difficult to conclusively demonstrate that water quality trends in any specific agricultural area are driven by agricultural activities and not residential septic, other non-agricultural activities, or wildlife.

## WATERSHED BASINS

For the purpose of defining and monitoring the baseline and benchmarks, the County's watersheds are divided into the following discrete sub-basins based on natural breaks in topography and zoning:

- Samish
- Lower Skagit
- Fisher Carpenter
- Nookachamps
- Middle Skagit
- Upper Skagit
- Sauk



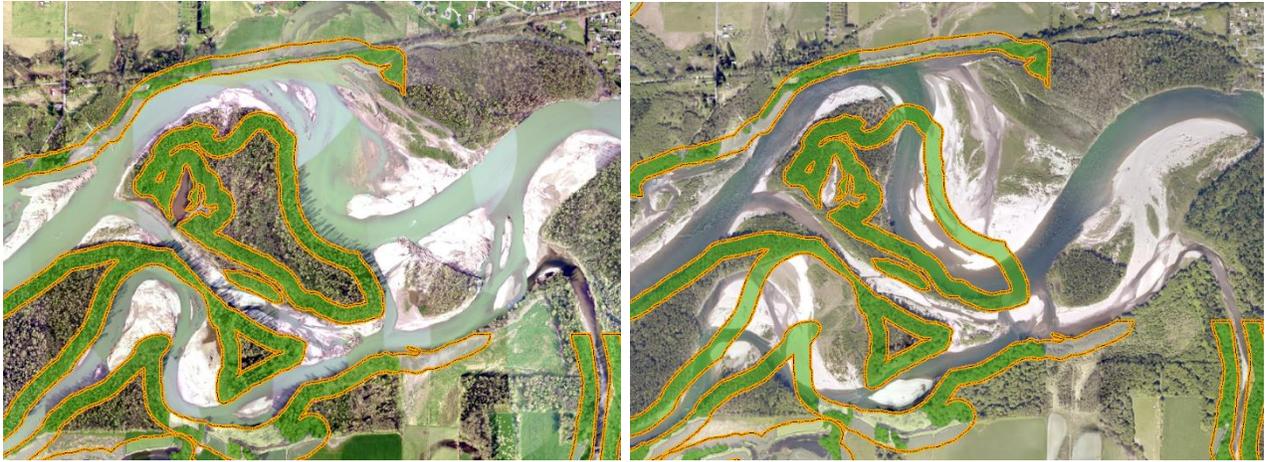
## EXCEPTIONS

Some losses of riparian vegetation within the study area are excusable, and sometimes beneficial. The work plan attempts to identify those situations upfront and determine how to address them in the definition of protection.

### *Buffer Loss from Activities Other Than Agriculture*

Some losses of riparian vegetation will not be due to agricultural activities. When those losses occur, if the cause of the loss is some external factor not related to agricultural activities or over which the County has no control, we will excuse the loss from the determination of whether the County is achieving protection.

Protection is not affected when the amount of buffer decreases as a result of an identifiable event not caused by agricultural activities. Natural channel migration of the Skagit River can be sudden and dramatic. In the images below, the river moved substantially from 2007 to 2015, requiring changes in the expected buffer mapping. The Town of Lyman is shown in the upper right.



2007

2015

Several other types of events also result in excusable buffer decreases. For example:

- Natural progression and loss of trees due to age or disease;
- Bank sloughing or mass wasting may wipe out trees along streams;
- Flooding due to beaver dams or other natural channel migration may wipe out buffer, and may result in newly exposed stream banks without vegetative cover on the opposite side of the migrated channel;
- Hazard tree removal consistent with the existing critical areas ordinance, SCC 14.24.130;
- Some logging activities, even in stream buffers, are permitted by Forest Practice Rules;
- Residential or non-ag commercial activity that clears vegetation near streams, legally or illegally.

Any time our monitoring program identifies illegal clearing of riparian vegetation, we will remedy the violation through our existing code enforcement process. When the clearing is not associated with agricultural activities, that code enforcement process will take place independent of this work plan.

#### *Buffer Loss Due to Agriculture But with Replanting*

Where riparian vegetation is lost due to agricultural activity but the loss is identified and replanting is accomplished, that buffer loss will not count against the protection acreages. The County will record those areas, as well as any additional restored areas, as new plantings rather than trees or shrubs and continue to categorize those areas as new plantings until such time as they would normally be counted as shrub or tree cover.

Clearing of streamside vegetation by agricultural activities is *already prohibited* by the County's existing ag-CAO, but the effect of the work plan will be to ensure that any instances of such clearing are identified and remedied.

### *Invasive Weeds*

Another exception is allowed for clearing of invasive weeds, including Himalayan blackberry and Japanese knotweed. The County’s existing standard critical areas code allows noxious weed removal in buffers under certain conditions.<sup>80</sup>

Multiple agencies, notably the Samish Tribe, are involved in high-priority efforts to clear the Skagit of knotweed, an invasive that creates monocultures that provide little to no habitat value. Because of its aggressive root system and the fact that it dies in winter, knotweed contributes to destabilization of stream banks and sloughing.

Due to limitations of our monitoring methods, knotweed is counted as shrub cover during initial monitoring analysis. To avoid creating a disincentive to removal, identified clearing of knotweed and other invasives will *not* count against the required protection acreage metrics, and new plantings to prevent reoccurrence of invasives *will* count toward the protection acreages.

## Prohibition on Clearing Riparian Habitat and Expansion into Wetlands

### EXISTING RULES

Skagit County’s critical areas code requires administrative review of all land use activities within critical areas and their buffers, with some exceptions. One such exception is for:

*Existing activities defined as ongoing agriculture on designated agricultural land, including related development and activities which do not result in expansion into a critical area or its buffer and which do not result in significant adverse impacts to a critical area or its buffer; provided, that such activities comply with the provisions of SCC 14.24.120.<sup>81</sup>*

The effect of this provision is that agriculture does not have to stop farming adjacent to critical areas, but if they do stop farming and plant riparian buffers, those buffers cannot be later removed. Agriculture also has to comply with the requirements of SCC 14.24.120 (the “ag-CAO”).

### PROPOSED CLARIFICATION

Current Skagit County Code 14.24.120(3)(a) describes the County’s “no harm or degradation standard” that all ongoing agricultural activities must meet. Among other things, this standard specifies that agriculture show:

*(v) No evidence of significant degradation to the existing fish habitat characteristics of the watercourse from those characteristics identified in the baseline inventory described in Resolution No. R20040211 that can be directly attributed to the agricultural activities that are described in this Section.*

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<sup>80</sup> SCC 14.24.530(3)(d).

<sup>81</sup> SCC 14.24.070(2).

Resolution R20040211 is the resolution setting up the County’s existing water quality and salmon habitat monitoring programs. As described on page 86, those programs were not actually oriented toward establishing a useful countywide baseline, and were not useful for identifying individual activities that degraded fish habitat.

The County will propose to delete the reference to those programs and replace the sentence with a clearer standard:

*(v) No degradation of riparian habitat within the standard critical area buffer widths. Any in-water work, and any clearing of shrubs or trees other than noxious weeds with suitable replanting, within the standard critical area buffer widths is prohibited without critical areas review and approval.*

Because riparian clearing is already prohibited under the existing CAO, this is not a new substantive rule, simply a clearer expression of it.

## Enhancement

The VSP legislation defines “enhance” as “to improve the processes, structure, and functions existing, as of July 22, 2011, of ecosystems and habitats associated with critical areas.”<sup>82</sup>

In setting our enhancement metrics, the County reviewed the existing work and priorities of other restoration-focused entities already operating in the watershed, as well as known targets of opportunity and “low-hanging fruit” for achievable buffer enhancement.

- The Skagit Watershed Council has focused on the area between Sedro-Woolley and Rockport through their [Middle Skagit Initiative](#).
- The Nookachamps area is free-flowing (not constrained by tidegates), a frequently flooded area, and Chinook habitat. There is less existing buffer in this area compared to other basins.
- Nookachamps, Middle Skagit, and Samish basins have fewer miles of levees and roads immediately adjacent to shorelines.
- The Samish basin is the focus of the Clean Samish Initiative (“CSI”), providing opportunities to leverage CSI dollars for buffers for both VSP and CSI simultaneously.

### Buffer Enhancement Benchmarks

Consistent with our approach to determining functions and values in terms of acres of riparian buffer or wetland enhancement area, this work plan establishes the following enhancement benchmarks, to be achieved through voluntary, incentive-based measures. Buffer enhancements include but are not limited to:

- protected filter strips
- new planting projects
- deliberately created wetlands
- deliberately created estuary

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<sup>82</sup> RCW 36.70A.703(4).

- permanent protection of riparian buffers through conservation easements.

We would count all enhancements within the study area; not just those created as a direct result of VSP. These riparian, wetland, restoration, conservation, and floodplain protection enhancements are related to the objectives of the incorporated applicable plans in Appendix 4, including habitat limiting factor analysis, salmon recovery plans, TMDL plans, and the Puget Sound Partnership Action Agenda.

Sub-Basin	Stream Miles	Existing Buffer (acres)	Enhancement Benchmarks (acres)		
			2020	2025	2030
Samish	118.2	1,156	+5	+10	+15
Lower Skagit	224.4	526	+2	+4	+6
Fisher Carpenter	7.3	61	+0.5	+1	+1.5
Nookachamps	40.5	579	+2	+4	+6
Middle Skagit	155.1	2,727	+5	+10	+15
Upper Skagit	22.5	418	+2	+4	+6
Sauk	12.5	215	+1	+2	+3

These benchmarks are cumulative from the 2011 baseline, e.g., if 10 acres of enhancements are added to the Samish basin by 2020, no additional acreage is required to meet the 2025 goal. The enhancement benchmarks were drafted by assessing past enrollments into voluntary measures and best management practices over the past decade, including CREP and NRSP, within the applicable VSP areas.

The “stream miles” column was calculated using GIS methods. First, the Skagit County GIS Department created a VSP hydrology data set by incorporating all applicable hydrology features within the VSP study area. Stream segments that met the “Stream” and “Perimeter” line attribute type were selected and summarized by watershed. Water bodies greater than 40 feet wide are measured from both edges, while waterbodies less than 40 feet wide are measured from the centerline.

The “existing buffer in acres” column was also created using GIS methods. This number represents a summary of the F, S, and P category acre totals from the Riparian Buffer Widths and Characteristics table.

### ENHANCEMENT BASELINE

Only enhancements gained within the area applicable to this work plan, i.e., Ag-NRL and RRc-NRL zones, may be counted toward these goals.

### METHODOLOGY & EXCEPTIONS

The methodology for protection metrics, including exceptions, will be used for calculation of enhancement metrics.

# Voluntary Measures

This section describes how Skagit County’s VSP Program intends to achieve the goals and benchmarks described earlier in the work plan. While achievement of the protection benchmarks will be ensured through enforcement of the County’s existing ag-CAO, the program will only be able to achieve the enhancement benchmarks through voluntary measures, including technical assistance, outreach, and education.

## Coordination and Outreach

Expansion of the County’s existing Natural Resource Stewardship Program (described on page 91) will be the centerpiece of the County’s voluntary measures for implementing VSP.

The Puget Sound Partnership’s work on voluntary incentive programs notes that success requires “a clearly identified and a trusted person or entity within a watershed, community, sector, or geographic area that has the energy, skills, and relationships to advance and implement the [voluntary incentive programs]. The person/entity identified needs to be able to effectively navigate the interests and perspectives of the targeted area.”<sup>83</sup>

After approval of the Work Plan, the County will dedicate 1.0 full time equivalent staffing for **VSP coordination**, which will involve implementation of the Natural Resource Stewardship Program and other related County programs, referring landowners to other programs, and serving as the primary point of contact for landowners seeking assistance managing riparian areas.

## Outreach Hub

The County’s Natural Resource Stewardship Program may be renamed to eliminate any distinction between it and VSP itself, and reoriented toward being a single point of contact for landowners to identify what programs may be helpful to habitat enhancement on their property. When no other programs are available, NRSP will implement and pay for measures directly as it has over the last several years.

While the new programs and initiatives described in this chapter will be a large part of the County’s efforts at achieving this work plan’s goals and benchmarks, promotion of existing programs will also be critical. The Puget Sound Partnership’s work on voluntary incentive programs recommends that the state create a “funding crosswalk”—a matrix of all the voluntary incentive programs with standardized descriptions and eligibility requirements that would be kept up-to-date on a central website.<sup>84</sup> Such a tool would be invaluable for the work of the Voluntary Stewardship Program; if the state does not develop

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<sup>83</sup> “Final Technical Memorandum: Effectiveness of Voluntary Incentive Programs in WA and Potential Next Steps,” ICF International (July 10, 2014) at 19.

<sup>84</sup> “Final Technical Memorandum: Effectiveness of Voluntary Incentive Programs in WA and Potential Next Steps,” ICF International (July 10, 2014) at 16. The memorandum notes that the [WSCC Grant Calendar and Directory](#) already provides most of this information, but not in a format that is useful for human users.

such a document, the County's VSP program will. Summaries of the programs that we may refer landowners to are included in "Existing Plans & Programs in the Watershed" starting on page 94.

## Outreach & Education

As part of Skagit County's broader efforts at enhancing external communication, the County hired a **Communications Coordinator** in 2016 who will assist the Voluntary Stewardship Program. The Communications Coordinator and the VSP Coordinator will coordinate with the Technical Service Provider to determine how much effort is needed to achieve the goals. The Communications Coordinator and/or VSP Coordinator will:

- design high-quality persuasive outreach materials describing the requirements of the County's ag-CAO and describing the programs and technical assistance available from the County and the Conservation District for agricultural operators;
- coordinate a direct mail campaign to potential program participants;
- ensure that buyers of agricultural property are aware of ag-CAO requirements and habitat enhancement opportunities;
- host an outreach booth at the Skagit County Fair and other related events;
- develop signage to be provided to participating farms to tout their stewardship;
- enlist the assistance of local farm associations and WSU Extension to promote VSP;
- develop a comprehensive website at [www.skagitcounty.net/vsp](http://www.skagitcounty.net/vsp) with all the outreach materials, application forms, and related materials;
- follow up surveys on effectiveness of communication.

## Reach-Scale Plans for Easement Acquisitions

There are several existing planning efforts and programs that are in place that may be leveraged for greatest benefit. Each stream reach or watershed is at a different stage of "maturity" with regards to readiness for applying implementation funds strategically and effectively. The County will review these existing planning and program efforts and develop an easement acquisition strategy, including outlining potential funding sources. The County will also utilize various sources of information to prioritize reach-scale planning efforts, such as water quality data.

Skagit County is aware of grant opportunities for this level of planning (see, e.g., Ecology's NEP Watershed Protection Grant Publication no. 15-06-023), but those that require buffer widths consistent with the NOAA/NMFS buffer table are unlikely to be usable in Skagit County.

## Financial Incentives

Monetary incentives are generally required to get agricultural operators to participate in conservation programs that ask them to give up agricultural land that they could otherwise farm.

## Easements and Acquisitions

Current NRSP projects do not involve monetary compensation to landowners. The program will explore multiple options for compensation of landowners when buffers are planted. Preferences among landowners vary, and not every option may be suitable for every landowner. The program will attempt to

offer a full range of compensation opportunities, including the purchase of temporary easements for the planting areas, purchase of permanent easements, or purchase in fee simple through segmentation, a boundary line adjustment, or friendly condemnation.

### **LAND DIVISIONS FOR HABITAT ENHANCEMENT**

Existing county code at SCC 14.16.860 allows for segmenting a one-acre parcel containing an existing house in Ag-NRL or Rural Resource-NRL when a Farmland Legacy conservation easement is placed on the remainder.

The County will consider amending the subdivision code to allow for similar parcel segmentation to facilitate habitat enhancement when the segmented parcel, limited to the critical areas and their buffers, is acquired and to be used for habitat enhancement, while the remainder is subjected to a Farmland Legacy conservation easement. The County would need to work closely with any dike and/or drainage district that has access to the area to ensure continued maintenance is incorporated into the long-term plan of the area.

### **Current Use Taxation Program**

Skagit County offers special property tax treatment to qualifying natural resource property. Once enrolled, a participating property is assessed at a “current use” value, which is lower than the “highest and best use” assessment value that would otherwise apply to the property. The property tax is consequently dramatically lower for parcels enrolled in the program. This work plan proposes a change to the County’s current use open space program that would need to make its way through the normal legislative public participation process.

### **CURRENT USE OPEN SPACE**

Skagit County currently offers “open space” current use taxation to applicants without specific evaluation of their property for habitat values and features. But RCW 84.34.055 enables a county to establish a public benefit rating system, and valuation schedule for land classified as open space. The county legislative authority may direct the county planning commission to set open space priorities and to adopt, following a public hearing, an open space plan and a public benefit rating system (rating system) for the county. Properties rated higher using the system get a larger reduction in valuation (and therefore a larger tax break). In developing the rating system, the legislative authority must give priority consideration to lands used for buffers planted with or primarily containing native vegetation.<sup>85</sup>

Skagit County will consider modifying its current use open space program to add a public benefit rating system and valuation schedule that prioritizes riparian habitat and buffer enhancement over other open space properties.

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<sup>85</sup> WAC 458-30-330.

## Farmland Legacy Program

The Skagit County Farmland Legacy Program purchases conservation easements that extinguish development rights on agricultural land. The program is funded by the County's Conservation Futures tax, and leverages that money to obtain grants from entities such as the Washington State Recreation and Conservation Office and the federal Natural Resource Conservation Service. Since its inception, the Farmland Legacy Program has protected over 10,000 acres through voluntary easement purchases and by easements acquired by the County's one-acre subdivision rule.<sup>86</sup> This program helps ensure the viability of agriculture in Skagit County.



Most parcels protected by existing Farmland Legacy easements could be eligible for soil conservation programs. Landowners are encouraged to explore these opportunities. Because it is likely that future NRCS funding will require habitat enhancement, Farmland Legacy will work to ensure landowners are compensated for any such habitat enhancement to incentivize their participation. Absent that additional compensation, recent experience has shown landowners will not participate.

## Soil Conservation Programs

Skagit County will explore financial incentive opportunities to encourage soil conservation practices on agricultural lands. These programs may include a cover crop installation program, drain tile installation program, and soil rental programs.

## Technical Assistance

The VSP legislation requires the County to “Ensure outreach and technical assistance is provided to agricultural operators in the watershed.”<sup>87</sup> This work plan designates the Skagit Conservation District (or other agency if the Skagit Conservation District is not available) as the agency to provide technical assistance to landowners for this program. Skagit County currently provides substantial funding to the Conservation District through the Clean Water Fund. A similar agreement may be established for assistance with the VSP, with required deliverables to ensure effective support of the VSP. Skagit County will work with the technical service provider to measure, in aggregate, the performance of individual stewardship plans toward the goals and benchmarks of the VSP work plan, and transmit the data to the watershed group.

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<sup>86</sup> SCC 14.16.860.

<sup>87</sup> RCW 36.70A.720(1)(d).

# Regulatory Backstop

Some members of the Ruckelshaus stakeholder group insisted that VSP include a “regulatory backstop” that would take over if the voluntary measures failed to achieve their aims.

## Illicit Discharge Code

SCC Chapter 16.32 prohibits discharges of anything other than stormwater into the county stormwater system, which includes all roadside ditches and stormwater facilities as well as natural systems such as streams and creeks. Violators can be cited with a civil infraction or by an administrative order to abate a public nuisance. This code provision has some, but limited, applicability to VSP because the code exempts “discharges from agricultural activities that are compliant with SCC 14.24.120” (the Ag-CAO).<sup>88</sup>

## Water Quality Regulations/Ecology Potential to Pollute

The Department of Ecology has authority under the Water Pollution Control Act, RCW Chapter 90.48, to control water pollution or activities that create a substantial potential to pollute.<sup>89</sup> The Supreme Court of Washington State upheld this authority in *Lemire v. Department of Ecology and the Pollution Control Hearings Board*, No. 87703-3, decided August 2013. Skagit County must refer to Ecology all complaints that are based on water quality data and an allegation of a violation of state water quality standards, as provided for in the County’s enforcement code.<sup>90</sup>

## Shoreline Management Act

RCW Chapter 90.58, the Shoreline Management Act, applies to certain major streams, lakes, and connected wetlands and floodplains. The SMA, as recently amended, exempts “agricultural activities on agricultural lands” (essentially, ongoing agricultural activities), but would apply to agriculture on *new* agricultural lands, or to new development.

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<sup>88</sup> SCC 16.32.030(4)(a).

<sup>89</sup> RCW 90.48.120.

<sup>90</sup> SCC 14.44.285(2).

# Monitoring, Reporting, & Adaptive Management

The success of this work plan depends on having a high quality, structured, and iterative system for monitoring successes and failures and, based on evidence, data, and analysis, developing and implementing process improvements to achieve our goals and benchmarks.

The County has the beginnings of a monitoring and adaptive management program as part of its existing critical areas ordinance. But because the County never adopted a baseline or developed appropriate benchmarks and triggers, the County’s existing ag-CAO monitoring program is not GMA-compliant and the County will not be relying on it for the purpose of VSP.

## Monitoring

The VSP legislation requires the County to “establish baseline monitoring” for:

- (i) Participation activities and implementation of the voluntary stewardship plans and projects; (ii) stewardship activities; and*
- (iii) the effects on critical areas and agriculture relevant to the protection and enhancement benchmarks developed for the watershed;<sup>91</sup>*

## Participation Metrics

To track progress toward the work plan’s participation goals, the County will maintain a master database of all participation metrics (see the **participation goals** table on page 37) and require reporting of participation metrics in all service provider contracts (e.g., with Skagit Conservation District).

In addition, if easements are established under this program, those easements will be monitored on an annual basis. The County’s Farmland Legacy Program has an existing monitoring protocol where an inspector visits protected properties annually. Any easements established under VSP will be added to the annual monitoring program to ensure compliance with easement conditions.

## Environmental Metrics

### REPLACEMENT OF EXISTING MONITORING PROGRAMS

The County’s existing Salmon Habitat and Water Quality Monitoring Programs established for the ag-CAO under resolutions R20030210 and R20040211 will be replaced. Water quality monitoring will continue as

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<sup>91</sup> RCW 36.70A.720(1)(i).

part of the Clean Samish Initiative and other programs, but not as directed by the Ag-Critical Areas Ordinance.

### MONITORING OF CARAS, GHAS, FFAS, AND WETLANDS

Skagit County's metrics for each of these four types of critical areas (see the table on page 37) are relatively simple. Monitoring will be achieved by pulling data from existing data sources at the prescribed intervals for work plan reporting. Each dataset will be filtered to the intersect areas, then to results that are identified as being caused by agricultural activities.

### MONITORING OF FISH AND WILDLIFE HABITAT RIPARIAN AREAS

To ensure Skagit County protects existing riparian vegetation (our [protection benchmarks](#)) and makes progress toward additional riparian vegetation (our [enhancement benchmarks](#)) Skagit County will measure riparian buffer widths and character using aerial photography and GIS tools. The intent of the work plan is to ensure that the metrics do not fall below the baseline levels established from 2011 aerial photography. At specified intervals, the County will then measure change from the baseline using updated aerial photography and report those changes in a similar table.

### RIPARIAN MONITORING METHODOLOGY

Skagit County's GIS Department ("Skagit GIS") performed an initial survey of riparian areas using aerial photography in 2008.<sup>92</sup> This work plan proposes to adopt the 2008 study approach to perform the monitoring required for VSP. This section describes the proposed methodology for the analysis, building on the 2008 structure.

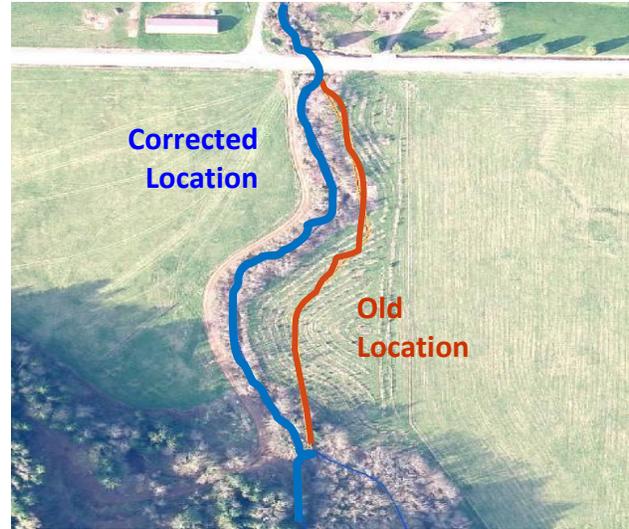
*Aerial photography.* Skagit County has contracted with Pictometry International for aerial photos of the County since 2007. Flying over Skagit County with a set of digital cameras positioned around the airplane, Pictometry takes photographs in both a straight-down orientation as well as at a 40-degree angle. The photos are georegistered using a combination of an airborne Global Positioning System (GPS), an Inertial Measurement Unit (IMU), and a digital elevation model of the earth's surface. The resulting orthophotos are one-foot color; the oblique photos have variable resolution but are invaluable for determining land use and land class information.

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<sup>92</sup> Joshua Greenberg and Sean Carson, "Mapping Riparian Land Use within Agricultural Zones: A Case Study in Skagit County" (research paper, Skagit County, 2010).

*Hydrology update.* The Washington State Department of Natural Resources (DNR) provided the original hydrology data for the 2008 study, which outlined watercourse locations in the study area. The DNR's watercourse locations, however, did not match Skagit County's 2007 aerial photography of the study area. Skagit GIS corrected the existing hydrological data to realign misrepresented stream locations.

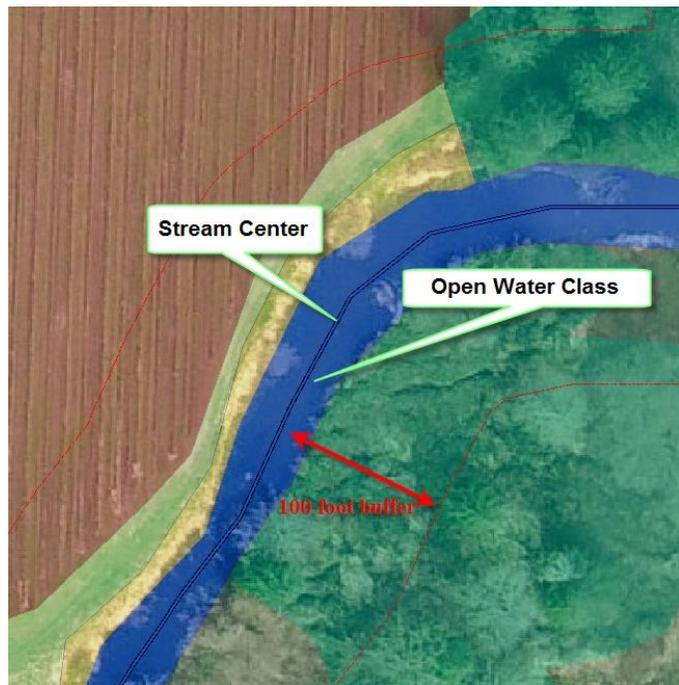
In the graphic, the red line or old location, represents the location of a watercourse as provided by the Washington State Department of Natural Resources (DNR). The blue line, or corrected location, depicts the actual location of the watercourse as provided by the aerial photography.



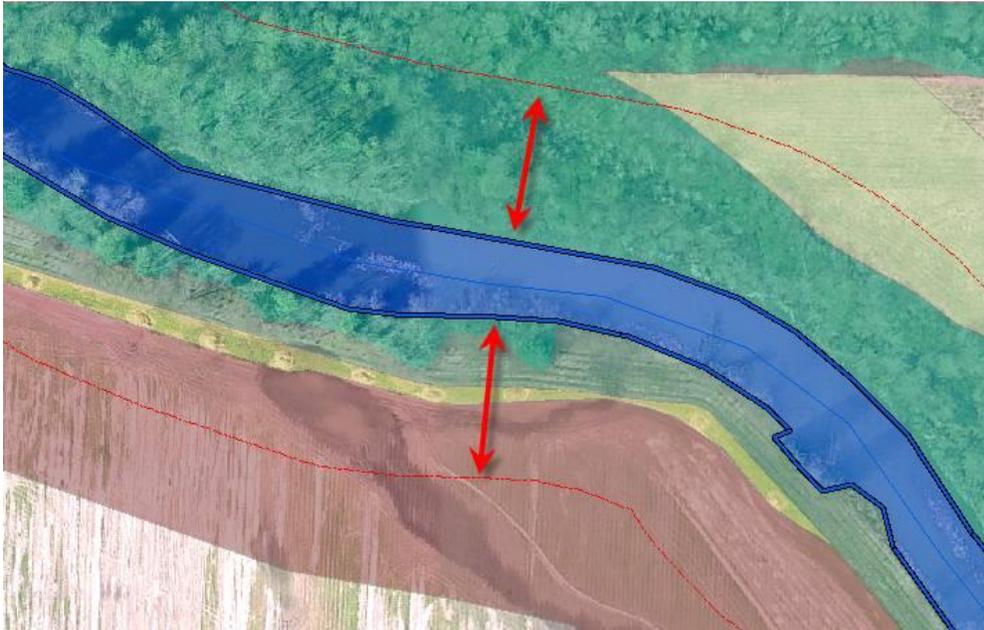
Skagit GIS used data from the Skagit River System Cooperative (SRSC), a non-profit research agency of the local Sauk-Suiattle and Swinomish Indian Tribes, to update DNR's watercourse types. The typing used for this study, therefore, was the best available and most up-to-date data.

*Measuring buffer distances.* The hydrological dataset used for the study did not contain shape data for bodies of water less than 40 feet wide. Such bodies of water are represented only by a thin centerline; Skagit GIS drew the buffer area from this centerline.

For example, here is a body of open water less than 40 feet wide where the buffer is drawn from the centerline of the stream.

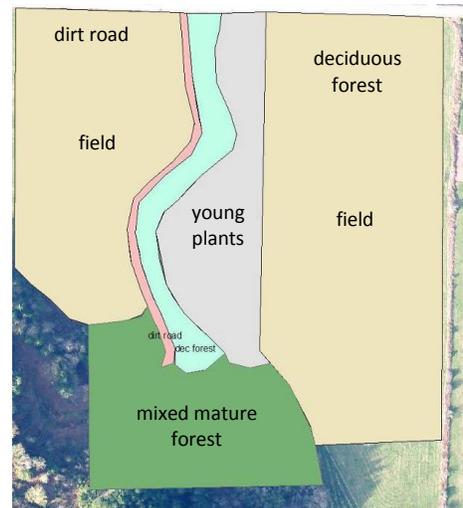


Conversely, on streams greater than 40 feet wide, the buffer is drawn from the perimeter of the provided stream shape and the underlying water is classified as “open water”:



*Classification of riparian areas.* For the 2008 study, using the aerial photography, the project team categorized the land cover types within 200-feet of each stream in the study area. Map designations distinguished between young plants, mixed mature forests, deciduous forests, and other vegetation and ground cover classifications such as roads and structures. For VSP, categories will include new plantings, shrub, and forest. The measured buffer width will be based on the stream type classification.

There are two main methods used for performing a land cover or land use classification analysis: heads-up digitizing and automatic classification. Skagit GIS used heads-up digitizing for the purpose of the 2008 study and proposes to do the same for the VSP analysis. Heads-up digitizing is the oldest method and requires one person to evaluate photos and draw lines around the boundaries of different land use classifications. The accuracy of this approach depends on the quality of the photos and the skill of the digitizer.



Automatic classification is a newer technique that uses a computer to analyze images and determine classifications, or at least the boundaries of the study areas. This method is often faster and more systematic and is therefore easier to repeat. Computer-derived classification is more common with lower-resolution satellite images; however, newly developed software programs and techniques assist in classifying higher-resolution data.

*Identification of loss areas.* The County's photography supplier, Pictometry, has developed an automated system that is capable of generating a three-dimensional model of a landscape from the aerial photography. Pattern recognition algorithms compare images to create matching points, which are then identified in 3D space and compared to convert the image into a model.

After the software generates the model, the user can quickly search for areas of change. For example:



left: 2013 aerial photography of forest cover before clearing  
right: 3D model of same area based on 2015 photography; brown identifies lower height, indicating clearing

Skagit County may make use of this technology as it becomes commercially available to rapidly detect all areas of change within the study area, identify the reason for the change, and then take code enforcement action if appropriate to correct any violations.

*Identification of planting areas.* Skagit County will map all relevant riparian planting projects on an accessible GIS layer, including CREP and NRSP projects. The Skagit Watershed Council has discussed creating a similar geodatabase containing restoration project basic descriptions of size, location, date, management authority, planting approach, existing financial resources, remaining maintenance needs, and estimates of unmet effort/cost. If that project is far enough along, the County may seek to utilize the Watershed Council's data instead of maintaining its own.

## **GROUND TRUTHING**

GIS will perform site visits to several randomly selected sites with different land cover characteristics within the study area to ensure that their analysis based on the aerial photography matches the conditions visible on the ground. GIS will also use other data layers, such as LiDAR, when available, to help confirm any use of automated aerial photography analysis.

## **ASSISTANCE TO STATE AGENCIES**

Skagit County will share the results of these monitoring efforts with all state agencies as necessary to assist with their monitoring programs, including our updated hydro data GIS layer.

## Timelines for Reporting and Review

The VSP legislation requires the County to report on VSP implementation progress at various intervals. The County will make all such reports available on the County VSP webpage at [www.skagitcounty.net/vsp](http://www.skagitcounty.net/vsp).

### Two-Year Evaluation

Skagit County receives updated aerial photography every two years in odd-numbered years. The statute requires the watershed group to:

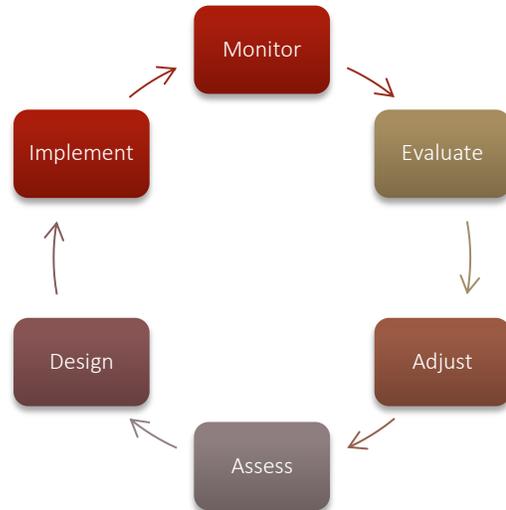
*(1) (j) Conduct periodic evaluations, institute adaptive management, and provide a written report of the status of plans and accomplishments to the county and to the [Conservation Commission] within sixty days after the end of each biennium;*<sup>93</sup>

At each two-year review, Skagit County will use the monitoring program to identify any failures to achieve protection, identify the sources of those failures and deficiencies, then allocate additional resources to address those source of failure, and re-measure to see if the response was effective. Skagit County will use the action thresholds (“triggers”) in the Protection tables on page 37 to determine when action is necessary to ensure the work plan continues to achieve protection for each type of critical area. When the threshold is reached, Skagit County will implement the response action in the table, or other actions that the watershed group determines may be necessary to continue achieving protection.

For Fish and Wildlife Habitat Conservation Areas within the intersect areas, the County will review updated aerial photography when available. Flights are March-April, depending on weather, and the County receives the photography in June-July. By the end of August of each odd-numbered year, the County will perform an automated analysis of riparian habitat within the study area. The focus of the analysis will be on detecting egregious violations of the Critical Areas Ordinance that should be corrected before the end of the four-year reporting period.

The County’s two-year evaluation will include:

- a summary of the automated land-cover analysis;
- a table of participation metrics;
- a summary of other notable work plan accomplishments.



<sup>93</sup> RCW 36.70A.720.

We will also evaluate the report of the Technical Service Provider on the aggregate performance of individual stewardship plans toward achieving the work plan’s goals and benchmarks, and use a similar adaptive management approach to identify and correct deficiencies on properties subject to those plans.

## Five-Year Report

In two places, the statute requires comprehensive program reviews at least every five years:

*(2)(b)(i) Not later than five years after the receipt of funding for a participating watershed, the watershed group must report to the director [of the Conservation Commission] and the county on whether it has met the work plan's protection and enhancement goals and benchmarks.*

*(2)(c)(i) Not later than ten years after receipt of funding for a participating watershed, and every five years thereafter, the watershed group must report to the director and the county on whether it has met the protection and enhancement goals and benchmarks of the work plan.<sup>94</sup>*

Because the County obtains aerial photography every two years, the County will perform a comprehensive land cover analysis for the purposes of VSP reporting every four years. Based on the most-recent land cover analysis, the five-year report will include:

- a complete description of all data captured as outlined in the monitoring methods;
- a complete listing of all instances of riparian vegetation loss;
- a complete description of all instances of excusable riparian vegetation loss;
- a complete description of all enforcement action intended to remedy any unexcused riparian vegetation loss;
- updated tables, consistent with the table design in this work plan, for buffer benchmark values.

The County will also make the raw data for the riparian monitoring analysis available on the website as a GIS layer. The underlying photography is made available on the free iMap tool on the County website. Several other local agencies, such as the Skagit River System Cooperative, Swinomish Tribe, and Upper Skagit Tribe, are partners in the County’s purchase of the aerial photography, and have complete access to the raw imagery.

## Reporting Schedule

Based on receipt of funding in 2016, the County expects to report on the following schedule.<sup>95</sup> This schedule will be updated based on Work Plan approval by the WSCC.

Date	Report Due
August 30, 2019	Two-Year Evaluation
August 30, 2021	Five-Year Report (including Two-Year Evaluation)
August 30, 2023	Two-Year Evaluation
August 30, 2025	Two-Year Evaluation
August 30, 2026	Five-Year Report
August 30, 2027	Two-Year Evaluation

<sup>94</sup> RCW 36.70A.720.

<sup>95</sup> RCW 36.70A.720(2)(b).

# Adaptive Management

## Consequences for Failure

The VSP legislation provides for consequences if the County fails to achieve the required benchmarks. At five years after receipt of funding, and every five years afterward:

- if **protection** is not being achieved, the County must propose an adaptive management plan to achieve the unmet goals and benchmarks.<sup>96</sup> The adaptive management plan must be approved by the director of the Conservation Commission; if the director does not approve the adaptive management plan, the director may extend the deadline for the County to achieve the benchmarks by six months.<sup>97</sup> If the deadline is not extended, or if the County still fails to achieve protection, the County must revise its work plan and get approval from the Department of Commerce, or exit the Voluntary Stewardship Program and adopt revised critical areas regulations to ensure protection.<sup>98</sup>
- if **enhancement** is not being achieved, the County must determine what additional voluntary actions are needed to meet the benchmarks, identify the funding necessary to implement these actions, and implement these actions when funding is provided.<sup>99</sup>

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<sup>96</sup> RCW 36.70A.720(2)(b)(iii).

<sup>97</sup> RCW 36.70A.730(2).

<sup>98</sup> RCW 36.70A.735.

<sup>99</sup> RCW 36.70A.720(2)(b)(iv).

# Viability of Agriculture

## Maintain and Enhance the Long-Term Viability of Agriculture

The VSP statute states that it is the intent of VSP to:

*[P]rotect and enhance critical areas within the area where agricultural activities are conducted, while maintaining and improving the long-term viability of agriculture in the State of Washington and reducing the conversion of farmland to other uses.<sup>100</sup>*

VSP's greatest benefit to agricultural stability and security is avoiding the specter of mandatory buffers on agricultural land. The County's Environmental Impact Statement on its 2003 Ag-Critical Areas Ordinance found that mandated 75-foot buffers on ongoing agricultural lands located on Type 1–3 streams and 25-foot buffers on Types 4–5 streams would take 3,142 acres out of production, with an estimated cost (lost market value of land and buffer maintenance cost) of between \$6,789,293 and \$12,824,714 (2003 dollars).<sup>101</sup> Even if active planting of buffers were not required, farmers would constantly be fighting blackberry vines and many other invasive plants if the land by the streams were abandoned from agricultural uses.

The Washington State Conservation Commission published the Agriculture Viability Toolkit<sup>102</sup> to provide the framework to further assess the viability of agriculture as it relates to the Voluntary Stewardship Program. This toolkit defines agricultural viability, outlines the process to complete a SWOT (strengths, weaknesses, opportunities, and threats) analysis of the viability of agriculture, and outlines five general areas that the plan may address. These general areas include: 1) A stable and secure base of agricultural land and water resources, 2) Shared agricultural production and market infrastructure and services, 3) Technical support to promote agricultural viability and conservation, 4) Education, training, and succession planning, and 5) a welcoming business environment.

There are consistent themes shared by the VSP guidance, Skagit County's Comprehensive Plan, the Skagit Valley agricultural community, and broader farmland preservation interests that offer ways in which Skagit County, through the Voluntary Stewardship Program, can review, monitor, and assist in maintaining the long-term viability of agriculture.

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<sup>100</sup> RCW 36.70A.700(2)(a). RCW 36.70A.720(1) and .735(1)(a) requires only maintaining, not enhancing, the viability of agriculture, but RCW 36.70A.725 provides that the state technical panel will assess this work plan to determine if it "will protect critical areas while maintaining and enhancing the viability of agriculture in the watershed."

<sup>101</sup> Final Programmatic Environmental Impact Statement on Development of a Critical Areas Ordinance for Application to Designated Agricultural Natural Resource Lands (Ag-NRL) and Rural Resource Natural Resource Lands (RRc-NRL) engaged in ongoing agricultural activity (June 12, 2003), at 22-23, 33.

<sup>102</sup> Washington State Conservation Commission, [Agricultural Viability Toolkit](#).

## Stable and Secure Base of Agricultural Land and Water Resources

### LAND USE

Land use and zoning regulations are typically cited as the most important factor for a stable and secure agricultural land base. Skagit County's Comprehensive Plan, Agricultural Resource Lands section, establishes goals and policies that ensure the long-term stability and productivity of the county's agricultural lands.

The Comprehensive Plan specifically outlines the following guiding principles for the county's agricultural resource lands: protect the agricultural land resource and farming in Skagit County; endeavor to minimize the loss of the resource; mitigate unavoidable losses; and replace lost resources whenever possible. These principles guide Skagit County's actions to:

- Preserve agricultural land for agricultural uses;
- Limit new non-agricultural uses and activities on agricultural resources lands;
- Provide education and support services that maintain the farming industry and lifestyle;
- Promote the economic benefits of farming;
- resolve conflicts between agricultural and environmental objectives; and
- monitor the long-term achievement of the goals and policies.

These goals and policies are intended to provide clear guidelines for land use planning and implementation in agricultural areas. The plan also includes policies to establish programs and other measures that promote and protect the current and future needs of agriculture within Skagit County.

#### **Goal 4A – Agricultural Resource Lands**

*Agricultural Resource Lands are those lands with soils, climate, topography, parcel size, and location characteristics that have long-term commercial significance for farming. Skagit County is committed to preserving and enhancing the agricultural land base and promoting economic activities and marketing support for a strong agricultural industry. The agricultural community faces significant challenges in preserving the agricultural land base and a viable agricultural industry, including: conversion of agricultural lands to development and inappropriate habitat restoration; conflict with neighboring residential uses; drainage impacts; and other disruption of agricultural lands functions and values.<sup>103</sup>*

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<sup>103</sup> Skagit County Comprehensive Plan 2016 -2036

The following Comprehensive Plan goals are intended to ensure the stability and productivity of agriculture in Skagit County:

**Goal 4A-1:** *Maintain Land Use designation criteria and densities for agricultural natural resource lands. Designate and map long-term commercially significant agricultural resource land accordingly.*

**Goal 4A-2:** *Support the Agricultural Advisory Board and other programs such as the Farmland Legacy Program for the purpose of promoting a viable agriculture land base and a healthy agricultural industry.*

**Goal 4A-3:** *Promote preservation of agricultural land for agricultural uses, minimize non-farming uses on agricultural lands; and develop incentive programs to promote farming.*

**Goal 4A-4:** *Land uses allowed on designated agricultural land shall promote agriculture, agricultural support services, and promote diverse agricultural industries.*

**Goal 4A-5:** *Minimize land use conflicts and promote mitigation of conflicts on the lands adjacent to agricultural resource lands.*

## WATER RESOURCES

Two imperative water related resources are necessary for the long-term viability of agriculture in Skagit County: the operation and maintenance of drainage infrastructure and access to water for irrigation. The County will continue to support the efforts of landowners and dike, drainage, and irrigation districts in obtaining necessary permits and authorities to maintain drainage infrastructure and to have access to water for irrigation. The County will also continue to provide for staff time to attend the Drainage Fish Initiative annual meetings; these meetings give staff an opportunity to provide clear guidance on the County's regulatory needs as related to maintaining drainage infrastructure. This is also a policy outlined in the Comprehensive Plan:

**policy 4A-5.5 Skagit Drainage and Fish Initiative:** *Within the Drainage Districts, identified in the Skagit Drainage and Fish Initiative, the agreements for maintenance, fish protection, and habitat restoration outlined in the Memorandum of Understanding (MOU) will predominate over local regulations. The MOU, developed by the Western Washington Agricultural Association (WWAA) and Washington Department of Fish and Wildlife (WDFW) is designed to reduce conflicts between different users in the Skagit and Samish River Deltas. The Skagit River Systems Cooperative (SRSC) participated in meetings and this Initiative represents movement toward overall reduced conflicts. This policy supports this movement.*

In addition, the County's Drainage Utility will continue to support and financially partner through Interlocal Cooperative Agreements with dike, drainage, and irrigation districts on mutually beneficial drainage projects. For example, within the past two years, the County has executed at least ten interlocal agreements with various districts to participate in drainage projects such as conveyance improvements, pipe linings, and infrastructure replacements. In addition, the County will continue to support the powers authorized to the dike, drainage, and irrigation districts as outlined in RCW Title 85 (Diking and Drainage) and Title 87 (Irrigation).

## AGRICULTURAL CONSERVATION EASEMENTS

Development rights are a landowner’s right to build houses and structures on their property under current zoning and planning policies. Another common and powerful tool to protect farmland is to purchase development rights off these properties.<sup>104</sup> Skagit County has a robust purchase of development rights program in the Farmland Legacy Program. The County will continue dedicated financial support for the Farmland Legacy Program to remove large numbers of development rights from farmland. This has the added benefit of removing potential homes from the floodplain. The Comprehensive Plan outlines the following applicable policies:

**policy 4A-2.2** *The Conservation Futures Program Advisory Board shall promote the preservation of agricultural land for use as farmland, including through its role in recommending purchases of permanent conservation easements on agricultural land and other lands of strategic significance.*

**policy 4A-2.3** *The Farmland Legacy Program shall continue to lead and coordinate agricultural policy efforts and farmland protection. The Farmland Legacy Program shall coordinate both the Agricultural Advisory Board and the Conservation Futures Advisory Committee.*

**policy 4A-3.2 Development Rights Program:** *Maintain and continue to fund the voluntary purchase of development rights through the Farmland Legacy Program to limit potential conversions or development in agricultural lands.*

**policy 4A-3.3 Conservation Easements:** *Where legally subdivided land would promote incompatible residential development, encourage the voluntary donation of conservation easements or other development restrictions to Skagit County or to a qualified private nonprofit organization for the purpose of preserving the perpetual agricultural use of the land.*

## OPEN SPACE TAXATION ACT

Lastly, the Open Space Taxation Act, enacted in 1970, allows property owners to have their open space, farm and agricultural, and timber lands valued at their current use rather than at their highest and best use.<sup>105</sup> While this VSP Work Plan suggests a potential path forward to amend the Current Use—Open Space classification program in Skagit County, the County should support the use of the Current Use—Farm and Agricultural Land tax incentive as it exists. This provides a direct financial return to participating farmers for the simple act of continuing to farm, and it is desirable to provide this benefit to as much as the farm community as possible.

## Shared Agricultural Production and Farm-to-Market Infrastructure and Services

The Agricultural Viability Toolkit discusses this area relating to irrigation support, drainage districts, utilities, processing facilities, transportation and port systems, and market access systems. This includes the work on commodity commissions and other programs to promote local and export market

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<sup>104</sup> American Farmland Trust, [Losing Ground: Farmland Protection in the Puget Sound Region](#), 2012.

<sup>105</sup> Washington State Department of Revenue, [Open Space Taxation Act](#), June 2014.

opportunities and also keeping agricultural equipment and supplies available to local agricultural producers.

Skagit County's Comprehensive Plan outlines policies related to production, infrastructure and services, including:

***policy 4A-4.1 Agricultural Production:*** *Agricultural production is the highest priority use in designated agricultural resource lands.*

***policy 4A-4.2 Agricultural Support Services:*** *Facilitate agricultural production by allowing agricultural processing facilities, direct farm sales, and agricultural support services that support long term agricultural use.*

***policy 4A-4.3 Farm-Based Business:*** *Farm-based businesses shall be allowed as an accessory use in Agricultural Resource Land. Farm-based businesses are an accessory use, secondary to the primary agricultural use of a farm property, and shall not interfere with adjacent farming operations, cause nuisances for nearby residences or generate large amounts of traffic.*

## Technical Support to Promote Agricultural Viability and Conservation

The Agricultural Viability Toolkit discusses this area relating to conservation practices that are supportive of agricultural viability, such as those set out by the Natural Resources Conservation Service and others. In the Voluntary Measures of this Work Plan, the Skagit Conservation District is designated as the agency to provide technical assistance to landowners for this program. A complete list of all applicable County and external programs within Skagit County can be found in Appendix 4. Skagit County currently provides substantial funding to the Conservation District through the Clean Water Fund. Participation in conservation practices is a component of this plan's participation and enhancement benchmarks.

Flexibility in the voluntary installation of conservation measures, such as riparian buffers, was a consistent theme throughout discussions involved in the production of this Work Plan. A flexible buffer installation program, for example, would allow for various buffer widths, site-specific selection of plants best suited for adjacent crops, and allow for continued maintenance access to levees, dikes, and drainage infrastructure. Any County purchase of a protective easement should also incorporate the need and access for dike, drainage, and irrigation district maintenance of drainage infrastructure.

The County participates in various forums with the intent of addressing conservation; a complete list is found in Appendix 4, Existing Plans and Program in the watershed. The following Comprehensive Plan policy applies to this area:

***policy 4A-2.10 Sustainable Agricultural Practices:*** *Information will be made available to landowners about sustainable agricultural practices, best management practices, and generally accepted management practices.*

**policy 4A-4.6 Habitat Restoration Projects:** *Habitat restoration projects are a permitted use on agricultural lands so long as it is shown through project review that the proposed restoration project does not have an adverse impact on hydrologic functions, drainage infrastructure or the ongoing agricultural use of adjacent properties.*

## Education, Research, and Succession Planning

Washington State University's Mount Vernon Research and Extension Center conducts extensive education and research in Skagit County. Their research programs include: Dairy & Livestock, Entomology, Hard Cider, Small Fruit Horticulture, Small Fruit Pathology, The Bread Lab, Vegetable Horticulture, Vegetable Pathology, Vegetable Seed Pathology, and Weed Science. In addition, WSU hosts Agricultural Summits to share information, gather feedback, and survey participants to understand the needs of the agricultural community. The 2016 Ag Summit, with 140 registered participants, outlined land-use regulation, water quality, and labor and the top issues. WSU also offers education through their Mount Vernon Extension center. These Extension programs include 4-H, Agricultural, Ideas for Healthy Living, Master Gardeners, Family Wellness Education, and Livestock Advisors.

Locally, Skagit Valley College offers a Sustainable Agriculture Education Program degree. This program provides students with a foundation of skills in sustainable agro-ecological sciences, natural resource management and environmental conservation. Coursework is designed to give students the core agriculture-related knowledge and production-related topics needed to succeed, as well as courses in marketing, value added, and business. The program emphasizes small-acreage farming with a farm-to-table concept.

In addition, the following Skagit County Comprehensive Plan policies apply to this area:

**policy 4A-2.9 Financial and Estate Planning:** *Encourage appropriate agencies to sponsor a variety of continuing educational and technical assistance programs to help farmers with financial planning. Such programs should emphasize options to protect farmland, business planning, farm transition planning, estate planning and conservation programs, techniques and strategies.*

**policy 4A-2.12 Promote Public Awareness:** *Encourage public awareness of the value of agriculture to the county. Develop printed materials or other media that illustrate the contributions of agriculture to the county, the challenges facing agriculture, and that promote agricultural lifestyle.*

**policy 4A-2.13 Promote Education:** *Encourage educational programs for public schools as part of the basic education of the county's youth. Emphasize the contributions of agriculture in the county and the need to protect and preserve this valuable resource base.*

## A Welcoming Business Environment

The Agricultural Viability Toolkit states that to maintain agricultural viability, the County should promote a stable and welcoming business environment. This can be achieved by looking for opportunities to collaborate with the agricultural community on efforts and incentives to improve agricultural viability and the natural environment. The County can maintain and enhance the long-term viability of agriculture by continuing to assist farmers in the complex laws and regulations encountered when proposing new farm

related infrastructure requiring County level review. In addition, the County can support farming through economic development authorities, such as marketing, access to markets, commercial kitchens, and other infrastructure. The Port of Skagit leads numerous programs to benefit the business environment of agriculture in Skagit County, such as the Innovative Partnership Zone (“IPZ”). The Washington State Department of Commerce has designated IPZs across the State as a place for collaboration and innovation. Skagit Valley’s IPZ is dedicated to value-added agriculture.<sup>106</sup>

The Port of Skagit also provides a welcoming environment to a diverse array of businesses, including those related to agriculture. The Port’s commercial kitchen was built in 2011 and serves as an incubator for emerging food businesses. Nine former users of the kitchen have established stand-alone businesses.<sup>107</sup> The Port property is also home to WSU’s Bread Lab, where the Bread Lab Plant Breeding Program conducts research on thousands of lines of wheat, barley, buckwheat and other small grains to identify those that perform well for farmers, and that are most suitable for craft baking, cooking, malting, brewing, and distilling. The most promising varieties are selected for flavor, nutrition, and distinctive characteristics. The Bread Lab began in 2011 in a small laboratory in the Washington State University Mount Vernon Research Center. Today it occupies 12,000 square feet at the Port of Skagit and includes the Bread Lab research and baking kitchen, a cytology lab, and the King Arthur Flour Baking School. In 2017, construction will add a milling laboratory and a professional kitchen overseen by James Beard Best Chef Northwest winner Blaine Wetzel.<sup>108</sup>

Currently, the Economic Development Alliance of Skagit County is participating in preparing for the next WSU led Agricultural Summit by analyzing events, trends, and root causes that impact economic advantages within the agricultural sector of Skagit County. This work will aid in creating countywide strategies to identify competitive advantages and unique value propositions.

In addition, the following Skagit County Comprehensive Plan policies apply to this area:

**policy 4A-2.6 Farmland Preservation Incentives:** *The Agricultural Advisory Board, Conservation Futures Advisory Committee and Farmland Legacy Program shall work to formulate strategies for improvements to agricultural production, marketing, processing, and farm labor practices and to develop and maintain programs which offer financial and other incentives to farm owners to preserve farmland for agricultural uses and to reduce their reliance on subdivision of land to raise operating capital.*

**policy 4A-2.11 Promote Agricultural Products:** *Create and facilitate opportunities to promote and market agricultural products grown or processed in Skagit County through local branding.*

<sup>106</sup> Skagit Valley Value-Added Agriculture Innovative Partnership Zone

<sup>107</sup> Port of Skagit, [Media Center](#), 2015

<sup>108</sup> Washington State University, [About the Bread Lab](#)

## Reporting

The U.S. Department of Agriculture, the Washington State Department of Agriculture, Skagitonians to Preserve Farmland, and Washington State University–Mount Vernon Cooperative Extension monitor the land in production in Skagit County. The USDA's National Agricultural Statistics Service conducts a Census of Agriculture every five years. The Washington State Department of Agriculture does annual detailed field level mapping of all agricultural activities in Skagit County that exceed 0.5 acres.

As part of the VSP reporting, the County will compile information related to the aforementioned agricultural statistics and the status of the agricultural viability strategies outlined in this section. This information will be summarized and incorporated into the two-year evaluations and five-year VSP reporting schedule. This reporting also meets the county's Comprehensive plan policy of completing an Agricultural Lands Status Report (CPP 4A-2.5). This Agricultural Lands Status Report will be distributed with farmland interests in the basin, including, but not limited to, the Board of County Commissioners, the Skagit County Conservation Futures Advisory Committee, the Skagit County Agricultural Advisory Board, the Western Washington Agricultural Association, Washington State University–Mount Vernon Cooperative Extension, Port of Skagit, nonprofit groups, and the Skagit Valley Herald.

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# Appendix 1. Resolution Initiating County Participation in the Voluntary Stewardship Program

SKAGIT COUNTY  
Resolution # R20140287  
Page 1 of 5

## **A Resolution Initiating County Participation in the State Voluntary Stewardship Program to Protect and Enhance Critical Areas Where Agricultural Activities are Conducted**

**Whereas** the Washington State Legislature, through Engrossed Substitute House Bill 1886 (2011), created a Voluntary Stewardship Program (“VSP”) for protection of critical areas in areas of agricultural activities while safeguarding Skagit County’s agricultural industry from litigation and excessive regulatory burden;

**Whereas** the Skagit River produces a third of Puget Sound’s fresh water and is home to a third of its threatened wild Chinook salmon;

**Whereas** Skagit County is committed to protecting and restoring salmon runs on the Skagit;

**Whereas** Skagit County contains nearly 70,000 acres of prime farmland and a vibrant agricultural industry;

**Whereas**, over the course of the past fifteen years, Skagit County has incurred more than \$5 million in legal costs defending Skagit Valley’s agricultural economy against lawsuits over critical areas;

**Whereas** ESHB 1886 made enrollment in the VSP “an alternative to protecting critical areas in areas used for agricultural activities through development regulations”;

**Whereas**, on December 19, 2011, the Board of County Commissioners adopted Ordinance O20110013, electing to enroll the entirety of unincorporated Skagit County, and all of its watersheds, in VSP;

**Whereas**, in the same action, the Board of County Commissioners nominated the Samish and Skagit watersheds for consideration by the State Conservation Commission as priority watersheds;

**Whereas** the state was expected to provide funding for counties enrolled in VSP in the amount of \$150,000 in the first year and \$125,000 in succeeding years, but has not yet done so;

**Whereas** the County has invested millions of dollars in substantial efforts to clean up the Samish watershed, preserve riparian buffers, improve fish passage, and restore habitat;

**Whereas** the County has substantial interests in resolving the agriculture/critical areas conflict, in protecting and enhancing critical areas, and in maintaining and enhancing the viability of agriculture;

**Whereas** state law requires the County to appoint a “watershed group” to develop the County’s work plan for Voluntary Stewardship Program implementation;

**Whereas**, per RCW 36.70A.715(2), the County must confer with tribes and interested stakeholders before establishing the watershed group and has done so by requesting comment on this resolution;

**Now Therefore Be It Resolved by the Board of County Commissioners that:**

Section 1. Required acknowledgements and designations.

- 1.1. Consistent with RCW 36.70A.715(1)(a), the Public Works Director is instructed to acknowledge "receipt of funds" to the State Conservation Commission.
- 1.2. Per RCW 36.70A.715(1)(b) and (4), the County designates itself to coordinate the watershed group and administer funds for each enrolled watershed.
- 1.3. The Board of Commissioners designates and instructs the Director of Public Works to lead implementation of the County's Voluntary Stewardship Program.

Section 2. Watershed group established.

- 2.1. The watershed group will be coordinated by the Natural Resources Division of the Public Works Department and is advisory to the Director of Public Works.
- 2.2. The primary duty of the watershed group is to assist in development of the work plan described in Section 4.

Section 3. Watershed group membership.

- 3.1. By subsequent resolution, the Board of County Commissioners will appoint interested stakeholders and members of the public to the watershed group.
- 3.2. Consistent with RCW 36.70A.715(3), which requires that the watershed group "include broad representation of key watershed stakeholders and, at a minimum, representatives of agricultural and environmental groups and tribes that agree to participate," the County desires community volunteers for the watershed group that each have:
  - (a) experience or expertise in the watershed;
  - (b) multiple interests and demonstrated ability to be open-minded, think creatively, and bring a broad-based perspective;
  - (c) demonstrated ability to work well with others, voice one's own opinion, listen to other views, and work toward common agreement; and
  - (d) commitment to the success of the program and the time necessary to see the process through to completion.
- 3.3. The County will circulate a call for letters of interest for membership in the watershed group and accept responses through Monday, October 13.
- 3.4. Per RCW 36.70A.715(1)(b), the County will appoint members of a watershed group within 60 days of acknowledgement of receipt of funds.

Section 4. Work plan.

- 4.1. Per RCW 36.70A.725(3)(b), the overarching objective of the work plan is to “protect critical areas while maintaining and enhancing the viability of agriculture in the watershed.”
- 4.2. Consistent with RCW 36.70A.720, the watershed group must accomplish the following in developing the work plan:
  - (a) Review and incorporate applicable water quality, watershed management, farmland protection, and species recovery data and plans;
  - (b) Seek input from tribes, agencies, and stakeholders;
  - (c) Develop goals for participation by agricultural operators conducting commercial and noncommercial agricultural activities in the watershed necessary to meet the protection and enhancement benchmarks of the work plan;
  - (d) Ensure outreach and technical assistance is provided to agricultural operators in the watershed;
  - (e) Create measurable benchmarks that, within ten years after the receipt of funding, are designed to result in (i) the protection of critical area functions and values and (ii) the enhancement of critical area functions and values through voluntary, incentive-based measures;
  - (f) Designate the entity or entities that will provide technical assistance;
  - (g) Work with the entity providing technical assistance to ensure that individual stewardship plans contribute to the goals and benchmarks of the work plan;
  - (h) Incorporate into the work plan any existing development regulations relied upon to achieve the goals and benchmarks for protection;
  - (i) Establish baseline monitoring for: (i) Participation activities and implementation of the voluntary stewardship plans and projects; (ii) stewardship activities; and (iii) the effects on critical areas and agriculture relevant to the protection and enhancement benchmarks developed for the watershed.
- 4.3. Per RCW 36.70A.725, the County must have its work plan approved by the director of the State Conservation Commission within three years of receipt of funding.
- 4.4. To provide adequate time for review by the Board of County Commissioners and review by the state technical panel, and to speed implementation of the Voluntary Stewardship Program, the Public Works Department should work with the watershed group to complete the work plan for recommendation to the Board of Commissioners within one year of the date of this resolution.

Witness Our Hands and the Official Seal of Our Office this 16 day of September, 2014.

**Board of County Commissioners  
Skagit County, Washington**

*Ron Wesen*

Ron Wesen, Chair

*Kenneth A. Dahlstedt*

Kenneth A. Dahlstedt, Commissioner

*Sharon D. Dillon*

Sharon D. Dillon, Commissioner



ATTEST:

*Linda Hanuman*

Clerk of the Board

RECOMMENDED:

*Dan Berentson*

Dan Berentson, Director  
Public Works Department

APPROVED AS TO FORM:

*Ryan Walters*

Ryan Walters, Civil Deputy  
Skagit County Prosecutor's Office



**Skagit County Prosecuting Attorney**  
**Richard A. Weyrich**

*extra copy*

CRIMINAL DIVISION		CIVIL DIVISION	FAMILY SUPPORT DIVISION
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SENIOR CRIMINAL DEPUTIES ERIK PEDERSEN TRISHA D. JOHNSON EDWIN N. NORTON SLOAN G. JOHNSON PAUL W. NIELSEN	OFFICE ADMINISTRATOR VICKIE MAUREN	CIVIL DEPUTIES ARNE O. DENNY, SR. DEPUTY MELINDA B. MILLER, SR. DEPUTY STEPHEN R. FALLQUIST JILL DVORKIN RYAN WALTERS	SENIOR DEPUTY GWEN L. HALLIDAY

**Memorandum**

To: Board of County Commissioners  
 From: Ryan Walters, Civil Deputy Prosecuting Attorney  
 Date: September 11, 2014  
 Re: Voluntary Stewardship Program Startup Resolution

At your August 8 meeting, the Board indicated its support for moving forward with initiation of the Voluntary Stewardship Program for protection of critical areas in areas of agricultural activities.

Consistent with the statute's requirement that we confer with tribes and interested stakeholders before establishing the watershed group, we circulated the draft resolution to various interests. We received comments supporting the resolution from the Ag Advisory Board, the Samish Tribe, and the 3FI Oversight Team. We also received comments from the Swinomish Tribe. All the comments are available on the VSP website at [www.skagitcounty.net/vsp](http://www.skagitcounty.net/vsp).

Staff recommends that you adopt the resolution, after which Public Works will start the process of advertising for letters of interest in participating in the Watershed Group through Monday, October 13.

**Process Timeline**

Statutory Deadline	Item
✓ January 22, 2012	Enroll in Voluntary Stewardship Program
▶ before adopting resolution starting VSP program	County solicits comments from interested stakeholders
▶ before designating group	County solicits letters of interest for local Watershed Group
w/n 60 days of receipt of funding	County designates Watershed Group
as necessary to obtain approval w/n 3 years of receipt of funding	Watershed Group meets to develop work plan
ASAP in order to obtain approval w/n 3 years of receipt of funding	County submits work plan to State Conservation Commission
w/n 45 days of receipt by SCC	State Technical Panel reviews work plan
w/n 3 years of receipt of funding	Receive work plan approval from Conservation Commission

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## Appendix 2. Relevant Definitions from Skagit County's CAO

**Anadromous fish.** Fish that spawn and rear in freshwater and mature in the marine environment.

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

- (1) Areas with which endangered, threatened, and sensitive species have a primary association;
- (2) Habitats and species of local importance that have been designated by the County at the time of application;
- (3) All public and private tidelands suitable for shellfish harvest;
- (4) Kelp and eelgrass beds, herring and smelt spawning areas;
- (5) Naturally occurring ponds under 20 acres with submerged aquatic beds that provide fish or wildlife habitat;
- (6) Waters of the State as defined by WAC 222-16-030;
- (7) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- (8) Areas with which anadromous fish species have a primary association;
- (9) State Natural Area Preserves and Natural Resource Conservation Areas;
- (10) Other aquatic resource areas;
- (11) State priority habitats and areas associated with State priority species as defined in WAC 365-190-080; and
- (12) Areas of rare plant species and high quality ecosystems as identified by the Washington State Department of Natural Resources through the Natural Heritage Program in Chapter 79.70 RCW.

**Natural watercourse:** any stream in existence prior to settlement that originated from a natural source. An example of a natural watercourse is a stream that originates in the foothills, flows through agricultural and/or urban land, and empties into a salt water bay or another watercourse.

**Artificial watercourse:** ditches and other water conveyance systems, not constructed from natural watercourses, which are artificially constructed and actively maintained for irrigation and drainage. Artificial watercourses include lateral field ditches used to drain farmland where the ditch did not replace a natural watercourse.

**Modified natural watercourse:** that segment of a natural stream that has been modified and is maintained by diking and drainage districts, and where such modification activity was done as a permitted activity that has undergone environmental review (SEPA and/or NEPA), and is in compliance with all necessary permits in effect at the time of its approval.

**Ongoing agriculture:** the continuation of any existing agricultural activity on Agricultural—Natural Resource lands or Rural Resource—Natural Resource lands, including crop rotations; provided, however, that for lands in RRc-NRL that are subject to the provisions of SCC 14.24.120, any property owner who applies for and receives CaRD approval under SCC 14.18.300 through 14.18.330 shall, at the time of CaRD approval, automatically be subject to the buffer requirements of SCC 14.24.530 and shall no longer be subject to the provisions of SCC 14.24.120. Activities undertaken for the first time after May 13, 1996, the date Skagit County adopted Ordinance 16156, the Critical Areas Ordinance, do not constitute “ongoing agriculture”; provided, that any lands that were fallow on May 13, 1996, but had been in agricultural production within 5 years prior to May 13, 1996, shall be considered “ongoing agriculture” for purposes of this definition. Activities that bring an area into agricultural use are not considered ongoing agriculture. In addition, in order for parcels of land under 20 acres to qualify under this definition, they must meet the criteria of RCW 84.34.020(2)(b) and (c).

## Appendix 3. Existing Ag-Critical Areas Ordinance

SCC 14.24.120 Ongoing Agriculture.

(1) Purpose and Intent. The purpose of this Section is to address 2 mandates under the Growth Management Act (GMA): (a) to protect the existing functions and values of fish and wildlife habitat conservation areas (FWHCAs) in and adjacent to natural, modified natural, and artificial watercourses as defined in SCC 14.04.020 (collectively “watercourses”), and (b) to conserve and protect agricultural lands of long-term commercial significance, specifically those lands in ongoing agricultural activity as defined by SCC 14.04.020 that are located adjacent to these watercourses.

(a) For purposes of this Section, “existing functions and values” means the following:

(i) Water quality standards identified in Chapter 173-201A WAC, including the provisions that account for natural or baseline conditions.

(ii) The existing presence or absence of large woody debris within the watercourse.

(iii) The existing riparian buffer characteristics and width, including but not limited to the existing amount of shade provided by the existing riparian buffer.

(iv) The existing channel morphology.

(b) Because many of the areas that are the subject of this Section are located in the Skagit and Samish River deltas or floodplains, where substantial diking and drainage infrastructure have been constructed and where various diking and drainage districts have lawful obligations to maintain agricultural and other drainage functions and infrastructure as established in RCW Titles 85 and 86, this Section also must accommodate those ongoing diking, drainage, and flood control functions.

(c) It is the goal of Skagit County to administer the provisions of this Section consistent with local, State, and Federal programs, statutes and regulations to protect the health, welfare, and safety of the community, to accommodate continued operation and maintenance of the diking, drainage, and flood control infrastructure and to protect agriculture, natural resources, natural resource industries, and fish and wildlife habitat conservation areas in and adjacent to watercourses. This Section is intended, to the maximum extent possible, to rely on and coordinate with but not substitute for or duplicate other State and Federal programs, statutes, and regulations that address agricultural activities in a manner that protects water quality and fish habitat. This Section is intended to supplement those existing State and Federal programs, statutes, and regulations only in those areas where the County has determined existing programs do not fully address GMA requirements to protect FWHCAs in and adjacent to watercourses and to conserve agricultural lands of long-term commercial significance.

(d) Skagit County hereby elects to enroll the entirety of unincorporated Skagit County, and all its watersheds, in the Voluntary Stewardship Program established by Engrossed Substitute House Bill 1886 (2011). Skagit County intends the Voluntary Stewardship Program, in conjunction with the provisions of this Section and Chapter, to protect critical areas in areas of agricultural activity.

(2) Applicability. Except as may otherwise be required by ESHB 1933, Chapter 321, Laws of 2003, for agricultural lands located within the jurisdiction of the Shoreline Management Act, Chapter 90.58 RCW, this Section shall apply to the following:

(a) As defined in SCC 14.04.020, all ongoing agriculture (including operation and maintenance of agricultural drainage infrastructure) which is located within 200 feet from a watercourse, or any ongoing agriculture (including operations and maintenance of agricultural drainage infrastructure) that adversely impacts the existing functions and values of a watercourse, is subject to the requirements of this Section. Isolated, artificial watercourses that have no channelized surface hydraulic connection or no piped hydraulic connection between the artificial watercourse and any natural or modified natural watercourse or any salt water shall not be subject to the requirements of this Section. Drainage tile used to convey groundwater shall not be considered a piped hydraulic connection.

(b) The provisions of this Section shall not be interpreted to permit expansion of ongoing agriculture (including agricultural drainage infrastructure) into areas that did not meet the definition of ongoing agriculture on May 13, 1996, including lands that were fallow on that date but had been in agricultural production within 5 years prior to that date, unless such expansion can comply with all of the requirements for critical areas protection found in this Chapter, including but not limited to the requirement to adhere to the standard critical areas buffers and setbacks.

(c) In this Section, the term “best management practices (BMPs)” refers to one or all definitions of that term in SCC 14.04.020, depending on which definition is relevant within the context used.

(d) Agricultural operations that do not meet the definition of ongoing agriculture are required to comply with the other provisions of this Chapter.

(3) No Harm or Degradation Standard.

(a) All ongoing agricultural activities must be conducted so as not to cause harm or degradation to the existing functions and values of FWHCAs in and adjacent to watercourses (the “no harm or degradation” standard). For purposes of this Section, the phrase “no harm or degradation” means the following:

(i) Meeting the State water pollution control laws; and

(ii) Meeting the requirements of any total maximum daily load (TMDL) water quality improvement projects established by the Department of Ecology (ECY) pursuant to Chapter 90.48 RCW; and

(iii) Meeting all applicable requirements of Chapter 77.55 RCW (Hydraulics Code) and Chapter 220-110 WAC (Hydraulics Code Rules); and

(iv) Meeting the specific watercourse protection measures for ongoing agriculture specified in Subsection (4) of this Section; and

(v) No evidence of significant degradation to the existing fish habitat characteristics of the watercourse from those characteristics identified in the baseline inventory described

in Resolution No. R20040211 that can be directly attributed to the agricultural activities that are described in this Section.

(b) The references to Chapters 77.55 and 90.48 RCW and Chapters 173-201A and 220-110 WAC contained in this Subsection shall not be interpreted to replace ECY and the Washington Department of Fish and Wildlife (WDFW) authority to implement and enforce these State programs with County responsibility to do so, but rather are intended to provide County input and a supplemental County involvement as needed to implement the County's GMA obligations under this Section.

(c) Reserved.

(d) An owner or operator is responsible only for those conditions caused by agricultural activities conducted by the owner or operator and is not responsible for conditions that do not meet the requirements of this Subsection resulting from the actions of others or from natural conditions not related to the agricultural operations. In those situations where the County is presented with data showing a violation of a State water quality standard at a particular location, but where the County cannot identify any condition or practice existing or occurring at a particular agricultural operation that is causing the violation, the County shall refer the information regarding the State water quality violation to ECY and shall follow other procedures described in SCC 14.44.085. Conditions resulting from unusual weather events (such as a storm in excess of 25-year, 24-hour storm), or other exceptional circumstances that are not the product of obvious neglect are not the responsibility of the owner or operator, but shall be subject to the requirements for emergency actions described in SCC 14.24.070(1).

(4) Required Watercourse Protection Measures for Ongoing Agriculture. Unless the emergency provisions of SCC 14.24.070(1) apply, the following watercourse protection measures are required:

(a) Livestock and Dairy Management. Livestock and dairy operations must not contribute any wastes or sediments into a natural or modified natural watercourse in violation of adopted State water pollution control laws.

(i) Livestock access to watercourses must be managed consistent with this Subsection. Access to a watercourse for livestock watering and/or stream crossings must be limited to only the amount of time necessary for watering and/or crossing a watercourse. Livestock watering facilities or access must be constructed consistent with applicable NRCS conservation practice standards, and must not be constructed to provide access to agricultural land that does not meet the definition of ongoing agriculture unless that agricultural land and the crossing can meet all requirements of Chapter 14.24 SCC.

(ii) Dairy operations must comply with the requirements of Chapter 90.64 RCW (Dairy Nutrient Management Act).

(iii) Livestock pasture must be managed so as to maintain vegetative cover sufficient to avoid contributing sediments to a watercourse in violation of State water pollution control laws.

(iv) Any existing or new livestock confinement or concentration of livestock areas that is located upgradient from a watercourse which results in bare ground (such as around a

watering trough) must be constructed and maintained to prevent sediment and/or nutrient runoff contaminants from reaching a watercourse in violation of State water pollution control laws.

(b) Nutrient and Farm Chemical Management.

(i) The owner or operator must not place manure in a watercourse or in a location where such wastes are likely to be carried into a watercourse by any means. Spreading of manure within 50 feet of any watercourse, and spreading of liquid manure on bare ground, is prohibited from October 31st to March 1st; unless otherwise permitted pursuant to:

(A) An approved and implemented dairy nutrient management plan (DNMP) as prescribed by Chapter 90.64 RCW; or

(B) A farm plan prepared or approved by the Conservation District.

(ii) Agricultural operators may not apply crop nutrients other than at agronomic rates recommended for that particular crop.

(iii) Farm chemicals may only be applied consistent with all requirements stated on the chemical container labels and all applicable Federal and State laws and regulations, such as Chapter 15.58 RCW (Pesticide Control Act), Chapter 17.21 RCW (Pesticide Application Act), and 7 USC 136 et seq. (Federal Insecticide, Fungicide, and Rodenticide Act).

(c) Soil Erosion and Sediment Control Management.

(i) Roads used for ongoing agricultural activities must be designed such that road surfaces, fill, and associated structures are constructed and maintained to avoid contributing sediment to watercourses.

(ii) Agricultural equipment operation must not cause watercourse bank sloughing or other failure due to operation too close to the top of the bank.

(iii) Watercourse construction and maintenance must meet the requirements for drainage operation and maintenance described under Subsection (4)(d) of this Section.

(iv) V-ditching must not be constructed to drain into a watercourse that contains salmonids, unless the topography of the field is such that the only alternative to drain the field by gravity is to drain the V-ditch into a watercourse that does contain salmonids. When draining a V-ditch into a watercourse that does contain salmonids, appropriate BMPs should be used to avoid contributing excess amounts of sediment to the watercourse. For the purpose of determining whether a watercourse contains salmonids, the County will use salmonid distribution based on the "limiting factors analysis" data compiled by the Washington State Conservation Commission.

(d) Operation and Maintenance of Public and Private Agricultural Drainage Infrastructure. The following practices apply to any watercourse that is part of drainage infrastructure, except those

practices performed pursuant to a fully-executed Drainage-Fish Initiative or Tidegate-Fish Initiative agreement:

(i) Regularly scheduled agricultural drainage infrastructure maintenance that includes dredging or removal of accumulated sediments in any watercourse shall be conducted between June 15th and October 31st. If an approved hydraulics project permit provides for a different work window, those requirements control. If presence of fall or over-winter crops prevents regularly scheduled maintenance during this time period, then the maintenance may be conducted outside this work window; provided, that the person or entity proposing to conduct the maintenance outside the work window can demonstrate that the presence of crops prevents maintenance within the work window and provided the maintenance is conducted using best management practices to minimize sediment or other impacts to water quality.

(A) Owners or operators shall consult with districts conducting drainage maintenance to schedule their crop rotations for crops that may still be in the field after October 31st so that, to the maximum extent possible, such drainage maintenance can occur in a year when the fall crops are not being raised in the field adjacent to the drainage infrastructure scheduled for drainage maintenance.

(ii) Unless there is no feasible alternative, regularly scheduled maintenance that includes dredging or removal of accumulated sediments in any watercourse should be conducted at those times when there is no or minimal water flow in the watercourse being maintained to minimize potential for distributing sediments to salmonid-bearing waters.

(iii) Excavation spoils must be placed so as not to cause bank failures and so that drainage from such spoils will not contribute sediment to the watercourse.

(iv) Mowing or cutting of vegetation located within a watercourse that is part of drainage infrastructure may be conducted at any time; provided, that the cutting is above the ground surface within the channel and in a manner that does not disturb the soil or sediments; and provided, that the cut vegetation does not block water flow. Watercourse bank vegetation shall be preserved or allowed to reestablish as soon as practicable after drainage construction and maintenance are completed to stabilize earthen ditch banks.

(v) Districts subject to this Section, operating pursuant to authority in RCW Title 85 or 86, which are conducting drainage activities shall complete and submit a drainage maintenance checklist to the County by June 1st of each year. The checklist shall describe the intent of the district to comply with the drainage maintenance requirements of Subsection (4)(d) of this Section. The districts may seek assistance from NRCS, SCD and/or the County in completing the checklist or addressing the requirements of this Subsection. The checklist shall be available from Skagit County Planning and Development Services, mailed to any entity conducting drainage activities, and shall be submitted to Planning and Development Services when completed. The districts may submit modifications to the information in the checklist, if circumstances affecting district maintenance change after the initial submittal.

(A) The County shall send a written notice to any district not submitting this completed checklist by June 1st of each year, stating that the County has not received the required checklist and that the district is not authorized to conduct drainage maintenance activity until the district has submitted the completed checklist evidencing intent to comply with this Subsection.

(B) Subsequent commencement of drainage maintenance work without submitting a completed checklist shall be subject to enforcement pursuant to Chapter 14.44 SCC.

(vi) Immediate measures necessary to drain fields inundated by an unanticipated flooding event or failure of the agricultural drainage infrastructure shall be subject to the requirements for emergency repair described in SCC 14.24.070(1).

(5) Recognition for Agricultural Owners and Operators Who Have Implemented Extra Watercourse Protection Measures. This Subsection intends to recognize the extra watercourse protection measures for ongoing agriculture taken by landowners or operators who have implemented an approved dairy nutrient management plan (DNMP) or resource management system plan (RMS plan) (including, but not limited to, CREP) from SCD or NRCS.

(a) Those portions of land upon which owners or operators have sought and implemented an approved DNMP or an RMS plan consistent with the conservation practices and management standards that meet the FOTG quality criteria for each natural resource (soil, water, animals, plants and air) are entitled to a presumption of compliance with the “no harm or degradation” standards described in Subsection (3) of this Section. The RMS plan or DNMP must include within the planning unit any watercourses located on the property, as well as all upland areas within the owner’s control that could potentially adversely impact the watercourse and/or associated fish habitat.

(b) Such presumption of compliance may be rebutted and enforcement commenced as described in SCC 14.44.085 if the County obtains credible evidence that the agricultural operation is not meeting the no harm or degradation standards of Subsection (3) of this Section. To be entitled to this presumption, the owner or operator shall provide the County with documented evidence of implementation of those elements of the approved plan that are relevant to the resource impact at issue at the time a Request for Investigation (RFI) is presented to the County under SCC 14.44.010.

(6) Enforcement. The Department is directed to enforce the requirements of this Subsection, including the mandatory watercourse protection measures, as described in SCC 14.44.085.

## Appendix 4. Existing Plans & Programs in the Watershed

The VSP legislation requires the Watershed Group to:

*...review and incorporate applicable water quality, watershed management, farmland protection, and species recovery data and plans.<sup>109</sup>*

As part of developing this work plan, the Watershed Group received presentations or documentation on each of the plans and programs summarized below, loosely organized into four categories:

- Habitat and Salmon Recovery Plans
- Existing County Monitoring Programs
- Existing County Restoration and Enhancement Programs
- External Programs

### Habitat and Salmon Recovery Plans

#### ECOLOGY TMDL PLANS

<http://www.ecy.wa.gov/programs/wq/tmdl/tmdlstrategy.html>

In Water Resources Inventory Area 3 (Lower Skagit-Samish), the Washington State Department of Ecology lists the following Total Maximum Daily Loads: Campbell Lake for Total Phosphorus (EPA Approved), Erie Lake for Total Phosphorus (EPA Approved), Lake Ketchum for Total Phosphorus (Under Development), Padilla Bay for Fecal Coliform (Under Development), Samish Watershed for Fecal Coliform (EPA Approved/Implementation Plan), Skagit Basin for Fecal Coliform (EPA Approved/Implementation Plan) and Temperature (EPA Approved).

#### *How does the VSP work plan address these objectives?*

This work plan addresses the TMDL objectives of reducing fecal coliform counts by requiring and monitoring the retention of existing buffers and incentivizing voluntary measures, such as the installation of riparian vegetation, protective easement acquisitions, and promoting the use of existing conservation programs.

#### PUGET SOUND SALMON RECOVERY PLAN

[www.psp.wa.gov/SR\\_map.php](http://www.psp.wa.gov/SR_map.php)

The Puget Sound Partnership has compiled a regional chapter (Volume I) and fourteen watershed-specific chapters and a nearshore chapter (Volume II) into the Puget Sound Salmon Recovery Plan. The Skagit Chinook Recovery Plan chapter was drafted in 2005 with the objective of “providing a detailed pathway

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<sup>109</sup> RCW 36.70A.720(1)(a).

by which Skagit Chinook populations can recover to sustained numbers that meet recovery goals established, by agreement, between fisheries co-managers.”<sup>110</sup>

The Skagit plan (a) defines recovery goals, (b) identifies factors limiting Chinook production, and (c) proposes possible actions to achieve the recovery goals.

The limiting factors identified in the Skagit plan relevant to VSP include (2) degraded riparian zones, (5) sedimentation and mass wasting, (7) high water temperatures, and (13) illegal habitat destruction and degradation. Floodplains have been identified in the Skagit plan as “especially important for freshwater rearing” of Chinook. Much of the habitat provided by floodplains has been degraded or eliminated by dikes and other hydromodifications that “limit lateral migration and formation of backwaters and off-channel habitat.”

**The recovery action relevant to VSP is habitat protection and restoration.** The relevant elements of that action include (7.4) water and sediment quality and sediment transport, (7.5) stream channel complexity, and (7.6) riparian areas and wetlands.

Recommendations listed in the Skagit Recovery Plan relevant to VSP include:

- Identify and implement measure necessary to meet water quality standards in Chinook stream listed on the 303(d) list.
- Increase funding for water quality improvement grants
- Acquire floodplain parcels for conservation and/or restoration through willing sellers.
- Develop long-term funding sources for the purchase of land or easements in order to reduce the loss of channel complexity caused by human activities.
- Monitoring should consist of quantitative measurements of physical changes associated with land use practices.

WDFW and others are also working on a steelhead recovery plan that may be adopted during 2016.

#### *How does the VSP work plan address these objectives?*

This work plan addresses salmon recovery objectives of restoring degraded riparian zones, reducing sedimentation and mass wasting, reducing temperatures, and addressing illegal habitat destruction by requiring and monitoring the retention of existing buffers and incentivizing voluntary measures, such as the installation of riparian vegetation, protective easement acquisitions, and promoting the use of existing conservation programs.

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<sup>110</sup> Forward, *Skagit Chinook Recovery Plan* (2005).

## LIMITING FACTORS ANALYSIS FOR WRIA 3 AND 4

[http://www.pugetsoundnearshore.org/supporting\\_documents/WRIA\\_3and4\\_SkagitLFA.pdf](http://www.pugetsoundnearshore.org/supporting_documents/WRIA_3and4_SkagitLFA.pdf)

The Washington State Conservation Commission's Salmon and Steelhead Habitat Limiting Factors Water Resources Inventory Areas 3 and 4, the Skagit and Samish Basins, provides a consolidation of existing habitat information and rates various categories of habitat conditions. The habitat conditions are outlined in the following areas: The Skagit Basin, including the Nearshore Environment, WRIA 3 Estuaries, Lower Skagit Sub-Basin, Upper Skagit Sub-Basin, Sauk Sub-Basin, Baker Sub-Basin, and the Samish River Basin. The report assesses estuaries and nearshore areas for the following conditions: hydromodifications, water quality/sediment contamination, wetland/habitat loss, boat ramps, slips, and piers, and riparian instream habitat. The report assesses freshwater limiting factors by areas for the following conditions: fish passage, floodplain conditions, sediment: gravel quantity, sediment: gravel quality, road density, streambed stability, current instream LWD (quantity), riparian, water quality, and water quantity. The regions were then rated by conditions into poor, fair, and good categories.

### *How does the VSP work plan address these objectives?*

This work plan addresses salmon habitat limiting factors by requiring the retention of existing buffers and incentivizing voluntary measures, such as the installation of riparian vegetation, protective easement acquisitions, and promoting the use of existing conservation programs.

## PUGET SOUND PARTNERSHIP ACTION AGENDA

The Puget Sound Partnership is a state agency serving as the backbone organization for Puget Sound recovery. The Partnership coordinates the efforts of citizens, governments, tribes, scientist, businesses and nonprofits to set priorities, implement a regional recovery plan, and ensure accountability for results.

More locally, the Partnership also serves as a Regional Recovery Organization to coordinate Puget Sound partners around salmon recovery efforts and convenes a number of other state priority workgroups that impact Puget Sound recovery.

The Puget Sound Partnership's actions are guided by the Action Agenda. In the 2014/2015 Action Agenda for Puget Sound, three regional priorities are emphasized:

- Prevent pollution from urban stormwater runoff
- Protect and restore habitat
- Restore and re-open shellfish beds

The most relevant Action Agenda priority to the Voluntary Stewardship Program is the goal of protecting and restoring habitat. Restoring damaged shorelines and protecting salmon habitat along the many rivers and streams that flow into Puget Sound is necessary to save salmon. **The following sections of the Action Agenda support the goals of the Voluntary Stewardship Program.**

### *Land Development*

- A1. Focus Land Development Away from Ecologically Important and Sensitive Areas
  - A.1.2.1 Land use planning barriers, best management practices, and example

- A1.3 Improve, strengthen, and streamline implementation and enforcement of laws, plans, regulations, and permits consistent with protection and recovery targets
- A2. Protect and Restore Upland, Freshwater, and Riparian Ecosystems
  - A2.1 Protect and conserve ecologically important lands at risk of conversion
  - A2.2 Implement and maintain priority freshwater and terrestrial restoration projects
- A3. Protect and Steward Ecologically Sensitive Rural and Resource Lands
  - A3.1 Use integrated market-based programs, incentives, and ecosystem markets to steward and conserve private forest and agricultural lands
  - A3.2 Retain economically viable working forests and farms

### *Floodplains*

- A5. Protect and Restore Floodplain Function
  - A5.3 Protect and maintain intact and functional floodplains

### *How does the VSP work plan address these objectives?*

This work plan addresses the PSP’s action agenda objectives of protecting and restoring habitat by requiring and monitoring the retention of existing buffers and incentivizing voluntary measures, such as the installation of riparian vegetation, protective easement acquisitions, and promoting the use of existing conservation programs.

### **PRIORITY HABITATS AND SPECIES (PHS) PROGRAM**

[wdfw.wa.gov/publications/00165/wdfw00165.pdf](http://wdfw.wa.gov/publications/00165/wdfw00165.pdf)

The Washington State Department of Fish and Wildlife’s Priority Habitats and Species (PHS) program, maintains a list of species and habitats that, due to their population status, historical and cultural importance, or overall sensitivity, are considered priorities for management and conservation. At the time of this writing, 20 habitat types, 155 vertebrate species, 41 invertebrate species, and 11 species groups were on the PHS list.

WDFW maintains an [online database and mapping program](#) that allows users to identify PHS habitats and species in a given area. WDFW also maintains the [SalmonScape](#) application that displays and reports a wide range of data related to salmon distribution, status, and habitats. The SalmonScape data sources include stream specific fish and habitat data, and information about stock status and recovery evaluations.

### *How does the VSP work plan address these objectives?*

Skagit County utilizes PHS data in determining critical areas and their associated reviews during project development.

### **SKAGIT COUNTY SALMON ACTION RESOLUTION**

[www.skagitcounty.net/salmonstrategy](http://www.skagitcounty.net/salmonstrategy)

In 2007, the Skagit County Commissioners approved [Resolution R20070499](#), directing County departments to proactively pursue salmon recovery efforts. The County utilizes the Puget Sound Salmon

Recovery Plan to procure grants and prioritize projects. In addition, the resolution calls for the County to collaborate with other local agencies including Skagit Fisheries Enhancement Group, Skagit Conservation District, Western Washington Agricultural Association, Skagit Land Trust, local tribes, resource agencies, and others whenever possible to achieve these objectives.

### **SKAGIT COUNTY HABITAT IMPROVEMENT PLAN**

[www.skagitcounty.net/publicworkswaterresources/documents/habitat%20improvement%20plan.pdf](http://www.skagitcounty.net/publicworkswaterresources/documents/habitat%20improvement%20plan.pdf)

In 2012, the Public Works Department Natural Resource Division drafted the HIP to prioritize and budget for upcoming projects and reiterate the importance of salmon habitat restoration. The plan has four goals: restore streamside riparian land; enhance fish passage under County roads; coordinate drainage and flood damage reduction with restoration efforts; and participate as an active member in Puget Sound clean up and restoration efforts. The HIP includes a six-year project matrix.

### **SKAGIT WATERSHED COUNCIL STRATEGIC APPROACH**

The focus of the Skagit Watershed Council is voluntary habitat restoration and protection. The Council was formed to provide leadership, technical expertise, and coordination of a forum for informed discussion and decision-making with regard to salmon habitat restoration and protection.

One of the Council's key responsibilities is to act as the lead entity for salmon recovery in the Skagit & Samish Watersheds. In this role, the Council performs a variety of administrative and planning functions, as detailed in RCW 77.85 and HB4296 (Salmon Recovery). This includes the ranking and evaluation of proposed salmon habitat restoration projects for possible funding from the State Salmon Recovery Funding Board (SRFB). The Council's philosophy is to examine the entire watershed rather than on a project-by-project basis. The Council's actions are guided by the Skagit Chinook Recovery Plan and the Council's 2010 Strategic Approach.

In addition to the responsibility as the Skagit and Samish Watershed Lead Entity, the Council is currently developing the Skagit River Riparian Habitat Stewardship and Restoration Strategy, which it intends to replace the 1998 Riparian Protection and Restoration Strategy. The strategy will be collaboratively developed to build operational support for restoring and stewarding riparian lands in ways that achieve the greatest ecological benefit with the most efficient use of resources, and incorporates planning, assessment, and coordination. This project will work across all Chinook habitat riparian areas adjacent to main stem, side channel, off-channel, and tributary habitats of the Skagit River.

### **Existing County Monitoring Programs**

Skagit County's critical areas monitoring program, defined in [Resolution R20040211](#), consists of two sub-programs:

- the [Water Quality Monitoring Program](#), intended to determine water quality conditions and trends in agricultural-area streams; and
- the [Salmon Habitat Monitoring Program](#), intended to measure physical stream conditions important to salmon habitat.

The objectives of both programs are to establish a baseline of current conditions, analyze trends in those conditions over time, and provide a means to differentiate between trends in conditions in lands subject to the ag-CAO versus other lands under Skagit County jurisdiction. Both programs have accumulated years of data and issued annual reports that are available from the program webpages.

### **WATER QUALITY MONITORING PROGRAM**

<http://www.skagitcounty.net/Departments/PublicWorksSurfaceWaterManagement/WQ.htm>

The County's water quality monitoring program consists of 40 sites throughout western Skagit County, located both within and outside of areas subject to the County's ag-CAO. Sites located within the agricultural zones are designed to determine the status and trends of water quality within those zones, while sites outside of the agricultural zones are in place to determine if trends seen in the agricultural zones are also present outside of those zones.

Since October 2003, each sampling site is visited every two weeks. Parameters measured include dissolved oxygen, temperature, pH, turbidity, conductivity, and salinity. Samples are also obtained for laboratory analysis of fecal coliform bacteria (each visit) and nutrients (quarterly). Water quality data is maintained on spreadsheets and routinely examined for evidence of water quality problems. An annual report is prepared which includes data summaries, graphs of important parameters, and statistical analysis for trends in water quality. The Department of Ecology has recognized Skagit County's monitoring program as providing "high quality data" and "excellent reporting."<sup>111</sup>

In 2007, Skagit County conducted a scheduled three-year review of its Critical Areas Monitoring and Adaptive Management Program, including contracting with the Washington Water Research Center at WSU to obtain an **independent scientific review of the water quality monitoring program**. WSU found "the monitoring program to be very effective as a trend monitoring program to assess water quality conditions within the County," and made several recommendations for future avenues of work that could strengthen the program.

While the original intent of the program was monitoring in support of the ag-CAO, data has also been used to locate pollution sources, focus restoration activities, and provide evidence of water quality improvements in locations where restoration and pollution abatement has improved riparian and aquatic conditions. After monitoring revealed excessive fecal coliform levels in the Samish River, subsequent sampling revealed a pattern of widespread severe fecal coliform contamination throughout the Samish Bay watershed, and led to the formation of the County's **Clean Samish Initiative**. The program's water quality data has been critical to success of that initiative.

### **SALMON HABITAT MONITORING PROGRAM**

The companion program to the County's water quality monitoring program, the Salmon Habitat Monitoring Program surveys physical channel and in-stream habitat conditions to document, quantify, and track salmon habitat conditions in the Skagit and Samish Watersheds.

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<sup>111</sup> Letter from Sally Lawrence, TMDL Lead for Skagit Watershed, Department of Ecology, Northwest Region Office, to W. Eugene Sampley, Director of Public Works, Skagit County (January 2, 2007).

The study design was built on the Environmental Protection Agency's Environmental Monitoring and Assessment Program (EMAP), which suggested a minimum of 60 stream reaches to be sampled on a five-year cycle and that 20 of the original 60 stream reaches be sampled annually. A variety of factors contributed to incomplete sampling over the course of the study. The 2004 survey was not totally completed until 2005, and only 40 reaches were sampled (16 Ag-NRL; 24 non-ag); the 2006, 2007, and 2008 surveys sampled 16, 15 and 18 reaches respectively (8, 8, 9 Ag-NRL; 8, 7, 9 non-ag). Because 2009 was the fifth year of the study, in addition to the 20 annual sites, another 40 randomly selected reaches were established for sampling. Nineteen of the 20 annual sites were sampled (permission was not granted by the new owners of the Ag-NRL zoned Friday Creek site) and 39 of the intended 40 new reaches were sampled (with one non-ag site missing). The program was suspended in 2014 as part of the County's reexamination of the usefulness of using EMAP to address short-term land use changes and policies.

## Existing County Restoration and Enhancement Programs

### CLEAN WATER PROGRAM

[www.skagitcounty.net/cleanwater](http://www.skagitcounty.net/cleanwater)

[www.skagitcounty.net/departments/publicworkscleanwater/history.htm](http://www.skagitcounty.net/departments/publicworkscleanwater/history.htm)

In 1995, due to poor water quality closing parts of Samish Bay to shellfish harvesting, the County created a shellfish protection district pursuant to RCW Chapter 90.72. The district currently generates \$1.3 million of annual revenue from the per-parcel assessment that is used for capacity funding of the County's clean water efforts.

The district was able to assist in cleaning up failing sewage systems and as a result, parts of the Samish Bay were reopened to shellfish harvest. Despite the improved water quality in the bay, continued monitoring suggested that fecal coliform pollution existed in the Samish Basin and elsewhere in the County. In 2005, the County created the Clean Water Program to address non-point source pollution in the County, with a special emphasis on reducing fecal coliform pollution. CWP currently funds a myriad of projects within the County, all focused on getting and keeping Skagit County water bodies clean and safe for residents.

In 2010, the CWP obtained nearly a million dollars in grant funding from the State Department of Health via the National Estuary Program to take steps in reducing fecal coliform pollution to shellfish growing areas. The National Estuary Program was established to identify, restore, and protect estuaries by engaging local communities in the process. The program focuses not just on improving water quality in an estuary, but on maintaining the integrity of the whole system. The County's current grant dedicates nearly \$60,000 to be used towards agriculturally focused BMP projects in the Samish and Padilla Bay watersheds. Those projects can include things like fencing, riparian restoration, and structural BMPs (such as manure storage areas and off-channel watering facilities).

### CLEAN SAMISH INITIATIVE

[www.skagitcounty.net/csi](http://www.skagitcounty.net/csi)

In 2009, Skagit County partnered with the Department of Ecology, Department of Health, Department of Agriculture, Skagit Conservation District, Skagit Conservation Education Alliance, Samish Tribe, Western

Washington Agricultural Association, Washington State Dairy Federation, Environmental Protection Agency, and Taylor Shellfish, among others, in an effort to reduce Samish Basin pollution in the short and long-term. The CSI program has included a substantial public outreach effort, procuring, and providing funding for restoration and management practices on properties with the potential to pollute, and increased monitoring of water quality in an effort to determine sources of nonpoint source pollution.

*Funding.* In 2010, the EPA awarded Skagit County a \$960,000 water quality improvement grant. In 2011, Skagit County's Clean Water fund contributed \$150,000 with an additional \$320,659 from an EPA grant. Skagit County is continuing to fund the CSI with Clean Water Program dollars and grants as available. This program is ongoing.

*Methods.* CSI is a "Pollution Identification and Correction" (PIC) program, adapted from Kitsap County, that concentrates water quality sampling measures to locate likely sources of pollution. In affected parts of the basin, sampling is followed up with landowner contact to determine if septic system or manure management problems are leading to the pollution. Public Works, Ecology, and WSDA staff conduct water quality sampling and work with Public Health and Planning and Development Services staff to identify specific locations of pollution sources. Public Health, Public Works, Planning, Ecology and WSDA staff also conduct voluntary site visits with willing landowners. If Skagit County finds potential sources or conditions of fecal coliform bacteria pollution, the inspectors refer landowners to appropriate resource agencies with programs designed to eliminate the pollution. Enforcement of County or State regulations occurs only when landowners with demonstrated pollution problems do not cooperate voluntarily.

Water quality monitoring is the core of any PIC program. Traditionally, sampling sites are identified near the confluence of streams and are monitored on a regular basis. Where high levels of pollutants are found, source identification sampling (sometimes referred to as "bracket sampling") occurs upstream to identify an area where the pollution is coming from. Staff then follow up with site visits to property owners in the focus area to identify the source of pollution, then work with property owners to correct any problems that are found. Water that is polluted with fecal bacteria has been our primary concern, however PIC methods can be used for nutrients, sediment, temperature and other pollutants. Skagit County's PIC Program has been operating since 2010 and has been successful in reducing levels of fecal coliform bacteria in the Samish Bay watershed.

Some pollutants are easier to track than others, and determining the source of the pollutant can sometimes be difficult. Some pollutants such as pesticides have their source only in human activities, while others like bacteria and nitrogen may come from human activities or natural sources. Bacteria in water are particularly variable, fluctuating frequently so that two samples taken one after another occasionally have very different results. As such, tracking bacterial pollution often requires several samples through time in order to identify a pattern. CSI has also used a dog specially trained to locate fecal coliform.

Additional factors that may limit the success of a PIC program are:



- Cost of lab analysis of water quality samples
- Availability of staff to perform water quality sampling and property inspections
- Willingness of property owners to allow staff to access their property for inspections
- Cost to property owners to fix problems

*Accomplishments.* As of spring 2015, the Clean Samish Initiative has:

- Provided technical assistance to over 90 livestock landowners
- Developed 28 small farm plans, 23 non-dairy commercial nutrient management plans and updated 3 dairy nutrient management plans
- Installed over 20,000 feet of livestock exclusion fencing
- Planted over 23,000 trees in protected riparian buffers
- Conducted 17 water quality and livestock workshops engaging over 400 basin residents
- Repaired or replaced 144 residential septic systems
- Installed 10 pet waste stations and 3 portable toilets

## NATURAL RESOURCES STEWARDSHIP PROGRAM (NRSP)

[www.skagitcounty.net/nrsp](http://www.skagitcounty.net/nrsp)

In 2009, Skagit County Centennial Clean Water Grant funds to begin a riparian planting effort. Matched with funding from the County’s Clean Water Fund, the County’s Natural Resource Stewardship Program (“NRSP”) has been one of its most successful and cost-effective programs for on-the-ground habitat enhancement.

NRSP assists individual landowners with improvements to their properties that benefit water quality and salmon habitat. The program can install livestock exclusion fencing, remove invasive vegetation, replant with native vegetation, or complete other projects that will benefit water quality at no cost to the participating landowner.

NRSP accomplishments since 2009	
30	landowners assisted
22,000	trees planted
3,000	native shrubs planted
100	pieces of woody debris placed
3	livestock crossings enhanced
13,000	feet of NRCS exclusion fencing
34,813	feet of stream bank protected

*Benefits to landowners.* NRSP works with landowners to remove non-native vegetation and replace it with native vegetation. Introduced and invasive vegetation cause many issues for property owners and the environment—with no natural predators, it can overtake an area and become a monoculture that destabilizes stream banks. Bank integrity is greatly increased with a variety of species of plants, providing for various root depths and structures working to hold the bank together and reduce erosion. Many of the common non-native plants in our area are annuals that die back during the winter months, when root strength is the most important for bank stability due to the higher water velocity.



NRSP focuses on streamside plantings and livestock exclusion fencing to protect them

NRSP also provides livestock exclusion fencing. The installation of livestock fencing benefits water quality by reducing the potential of pollution, such as fecal coliform from entering the stream. When livestock are fenced away from the stream banks the banks are better able to remain stable, reducing loss of property from erosion and allowing for the riparian area to return. Exclusion fencing also helps landowners avoid compliance issues under the County's existing agricultural critical areas ordinance. Fences have to meet NRCS practice standards but are able to be modified for specific needs such as type of livestock and location.



In a few cases, NRSP has enhanced livestock crossings over streams so that animals can access all parts of a particular landowner's property without damaging the watercourses

*Benefits to habitat.* NRSP benefits water quality and juvenile salmonids by installing riparian buffers that filter run-off and potential pollutants; provide shade to the stream which reduces stream temperatures; create a source for leaf litter which benthic macroinvertebrates (the small critters living on the bottom of the stream), the main prey source for juvenile salmonids; and allows for the eventual recruitment of large woody debris which provides bank stability as well as refuge for juvenile fish during periods of high stream flow.



**NRSP has installed 100 pieces of large woody debris through landowner projects since 2009; plantings later installed on the bank help prevent erosion**

*Process.* Skagit County landowners can enroll in NRSP through Skagit County Public Works. After verifying eligibility by checking that the property is along a stream, the County will contact the landowner to set-up a site visit. At this visit the County and the landowner will discuss the landowner’s needs (e.g., bank stabilization, livestock exclusion fencing, removal of invasive vegetation, etc.) and how those needs dovetail with habitat enhancement.

The next step is to complete the restoration plan. This includes the information for project implementation and maintenance for a three-year period. Often the County will contract with an outside agency to complete this work. Most often we have worked with the Skagit Fisheries Enhancement Group (SFEG) but have also worked with EarthCorp, the Samish Indian Nation, and private contractors. The restoration plan gets added to the Temporary Conservation Easement which the landowner then signs. This agreement states that the Landowner cannot intentionally harm the project for a period of 10 years and provides specifics on what the project is and how it will be completed. County staff works very closely with the landowner to ensure that the end result is a project that benefits the property in a manner suitable to the landowner. This can be as simple as tailoring the native vegetation to meet their specific preferences, or building a fence specific to their animal’s needs.

Once the project specifics have been settled on and the Temporary Conservation Easement has been signed, implementation can begin. Often this includes the mowing of blackberries and other non-native vegetation. This vegetation is often sprayed with herbicide in an effort to reduce future growth.

Following project implementation, the project site is maintained for a three-year period. Generally this requires once or twice annually mowing the site and spot spraying to ensure there is at least an 80% survival of the original plantings.

**Cost.** NRSP typically spends up to \$35,000 per project, and in some rare cases has spent up to \$50,000 on large projects deemed to have a substantial impact to water quality and salmon habitat. The program covers the cost of all permitting, if required, project implementation, and maintenance for three years. In contrast to the NRCS Conservation Reserve Enhancement Program, participants in NRSP do not need to show historical agricultural use on their property. There is no cost to the landowner.

The total cost of the NRSP program from 2009 through August 2015 was \$901,778.39 (see table).

Funding source	Period	Expenditures	Amount
Department of Ecology (G0900062) (75%) grant award was for \$540,000 and Clean Water Program (25%)	2008-2013	Fencing, Planting, Invasive Species Control, Bank Stabilization	\$599,954.43
National Fish and Wildlife Foundation grant (2008-0053-018) for \$50,000.	2009-2010	Re-routing of creek eroding towards a dairy barn and manure storage, invasive control, planting	\$43,801.65
Department of Ecology grant (C1100185) \$76,700	2011-2012	Fencing, invasive species control, planting, livestock crossing	\$71,533.83
Department of Ecology (G1400401) (75%) and Clean Water Program (25%)	2014 – present (grant for \$375k expires 2017)	Fencing, planting, invasive species control, bank stabilization in the Samish River watershed	\$61,039.17
Clean Water Program; allows for NRSP to continue to in areas outside of the grant-funded Samish watershed	Present	Fencing, planting, invasive species control, bank stabilization in areas outside the Samish watershed	\$26,499.23 \$50,000/yr
Pollution Identification and Correction grants	2013 - present	Manure storage, fencing, and planting	\$98,950.08
<b>Total</b>			<b>\$901,778.39</b>

## Existing External Programs

Skagit County is supported by a number of robust programs to assist farmers, protect critical areas, and restore salmon habitat. The County reviewed each of the following programs as part of developing this work plan. Many of the program summaries are lifted directly from the program websites. One relevant County effort is the Farmland Legacy Program, described elsewhere in this work plan.

### AGRICULTURAL CONSERVATION EASEMENT PROGRAM

<http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/easements/acep/>

The Agricultural Conservation Easement Program (formerly the Farm and Ranchland Protection Program), operated by the federal Natural Resource Conservation Service, provides financial and technical

assistance to help conserve agricultural lands and wetlands and their related benefits. Under the Agricultural Land Easements component, NRCS helps Indian tribes, state, and local governments and non-governmental organizations protect working agricultural lands and limit non-agricultural uses of the land. Under the Wetlands Reserve Easements component, NRCS helps to restore, protect and enhance enrolled wetlands.

Land eligible for agricultural easements includes cropland, rangeland, grassland, pastureland, and nonindustrial private forest land. NRCS prioritizes applications that protect agricultural uses and related conservation values of the land and those that maximize the protection of contiguous acres devoted to agricultural use.

Land eligible for wetland reserve easements includes farmed or converted wetland that can be successfully and cost-effectively restored. NRCS will prioritize applications based the easement's potential for protecting and enhancing habitat for migratory birds and other wildlife.

To enroll land through agricultural land easements, NRCS enters into cooperative agreements with eligible partners, such as the County's Farmland Legacy Program. Each easement is required to have an agricultural land easement plan that promotes the long-term viability of the land.

To enroll land through wetland reserve easements, NRCS enters into purchase agreements with eligible private landowners or Indian tribes that include the right for NRCS to develop and implement a wetland reserve restoration easement plan. This plan restores, protects, and enhances the wetland's functions and values.

### **CENTENNIAL CLEAN WATER GRANT PROGRAM**

[www.ecy.wa.gov/programs/wq/funding/FundingPrograms/Centennial/Cent.html](http://www.ecy.wa.gov/programs/wq/funding/FundingPrograms/Centennial/Cent.html)

The Centennial Clean Water Grant Program (CCWGP), funded by the Washington Department of Ecology, is designed to address nonpoint source pollution. Projects to reduce nonpoint source pollution can include stream restoration and buffers, septic repairs, or other projects that can be shown to improve water quality. Centennial Grant applications that implement Ecology's TMDL cleanup plans receive special consideration. In Skagit County, there are TMDLs for fecal coliform bacteria in the lower Skagit, Samish, and Padilla Bay watersheds and for temperature in the lower Skagit tributaries. Although CCWGP is not available to the individual landowner, projects can occur on private land and interested landowners are encouraged to reach out to the town, city, county, special purpose district (such as dike or drainage district), or Tribe nearest them to apply. Skagit County has twice received CCWGP funds for its Natural Resource Stewardship Program (NRSP). This money is available for start-up programs only, so will not be available for the continuation of NRSP.

### **CONSERVATION RESERVE ENHANCEMENT PROGRAM (CREP)**

[www.skagitcd.org/crep](http://www.skagitcd.org/crep)

In Skagit County, the Skagit Conservation District administers CREP under the oversight of the United States Department of Agricultural (USDA) Farm Service Agency (FSA). Landowners are able to procure an annual rent and a sign-up bonus in exchange for enrolling "environmentally sensitive land" with a history of agricultural use or agricultural land use zoning in the program, including areas around the majority of

fish-bearing streams and creeks within the County as well as some tributaries. CREP practices include riparian forest buffers, hedgerows, wetland enhancements, and grass filter strips.

Landowners contact the Skagit Conservation District to determine eligibility. If requirements are met, the landowner enters into a soil rental contract. These rental contracts can range between 10 and 15 years and are expected to be renewable as long as federal funding allows. Recent funding rates have ranged from \$298 to \$904 per acre depending on soil type. The program will cover technical assistance and provide funding for the labor and materials associated with conversion from active or historic farmland to a native vegetation buffer as well as maintenance of the plantings to ensure survival. The width of the buffer may vary from 35 feet to 180 feet. The Conservation District works with individual landowners to ensure the buffer boundary meets their needs; averaging is allowed.

### **ENVIRONMENTAL QUALITY INCENTIVE PROGRAM (EQIP)**

[www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/financial/eqip/)  
[www.skagitcd.org/eqip](http://www.skagitcd.org/eqip)

The Skagit Conservation District also administers EQIP for USDA Natural Resources Conservation Service (NRCS). This program provides funding and technical assistance for properties engaging in forestry production and other agricultural activities that have a “natural resource concern.” Contracts for this program are up to 10 years and intended to improve soil, water, air, and other natural resources on the property. This program can fund projects that benefit fish and wildlife including pollinators, drainage water management, air quality, forest lands management, and others.

### **NATIONAL WATER QUALITY INITIATIVE (NWQI)**

[www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/eqip/?cid=stelprdb1047761](http://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/programs/financial/eqip/?cid=stelprdb1047761)

The National Water Quality Initiative works with farmers to improve water quality in areas with a “critical concern.” This includes projects that reduce chemical water quality properties such as nitrogen, phosphorus, and sediment and pathogen introduction from agricultural lands. This funding will provide technical assistance to landowners and can include nutrient management, erosion control, pest management, and buffers among others. In 2014, twelve priority watersheds were selected nationwide; two Washington watersheds were eligible however, both were located in Whatcom County. Priority watersheds for this program may be updated annually and therefore funding may become available to Skagit County residents at some time.

### **ESTUARY AND SALMON RESTORATION PROGRAM (ESRP)**

[www.rco.wa.gov/grants/esrp.shtml](http://www.rco.wa.gov/grants/esrp.shtml)  
[www.pugetsoundnearshore.org/esrp/index.html](http://www.pugetsoundnearshore.org/esrp/index.html)

The Estuary and Salmon Restoration Program (ESRP) is managed by the Washington State Recreation and Conservation Office (RCO) and provides grants that facilitate protection and restoration of the nearshore throughout Puget Sound. Funding for this program comes from the State Building Construction Fund with the occasional influx of federal funding from United States Department of Fish and Wildlife and the National Oceanic and Atmospheric Administration’s Community Based Restoration Program. This funding is not available to the general public but can be awarded to local agencies, Tribes, non-profits, and private institutions.

## REGIONAL CONSERVATION PARTNERSHIP PROGRAM

[www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmland/rcpp/](http://www.nrcs.usda.gov/wps/portal/nrcs/main/national/programs/farmland/rcpp/)

The Regional Conservation Partnership Program (RCPP) is managed by the Natural Resource Conservation Service (NRCS). Through RCPP, the NRCS and partners help producers install and maintain conservation activities in selected project areas. RCPP encourages the restoration and sustainable use of soil, water, wildlife and related natural resources on regional or watershed scales. RCPP combines the authorities of four former conservation programs—the Agricultural Water Enhancement Program, the Chesapeake Bay Watershed Program, the Cooperative Conservation Partnership Initiative, and the Great Lakes Basin Program. RCPP contracts and easement agreements are implemented through the Agricultural Conservation Easement Program (ACEP), Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP) or the Healthy Forests Reserve Program (HFRP). NRCS may also utilize the authorities under the Watershed and Flood Prevention Program, other than the Watershed Rehabilitation Program, in the designated critical conservation areas.

## SALMON-SAFE FARMS PROGRAM

[www.salmonsafe.org](http://www.salmonsafe.org)

[www.stewardshippartners.org/programs/salmon-safe-puget-sound/](http://www.stewardshippartners.org/programs/salmon-safe-puget-sound/)

As described on their website: Salmon-Safe is an independent 501(c)(3) nonprofit based in Portland founded by the [Pacific Rivers Council](#). Their mission is to transform land management practices so Pacific salmon can thrive in West Coast watersheds. Salmon-Safe offers a series of peer-reviewed certification programs linking land management practices with the protection of agricultural and urban watersheds. Whether the site is an organic farm in northern California, an orchard in the Skagit Valley, a Walla Walla vineyard, or a Seattle-area corporate campus, certification requires management practices that protects water quality and restore habitat. Salmon-Safe also is introducing innovative new programs focused on site design and development, as well as an accreditation program for pollution prevention in large-scale construction management. Nine farms in Skagit County have been certified as Salmon-Safe.



## SKAGIT DELTA FARMLAND PRESERVATION STRATEGY

[www.skagitonians.org/wp-content/uploads/3FI-Farmland-Preservation-Strategy-Final-Working-Draft.pdf](http://www.skagitonians.org/wp-content/uploads/3FI-Farmland-Preservation-Strategy-Final-Working-Draft.pdf)

The Skagit Delta Farmland Preservation Strategy was prepared by Skagitonians to Preserve Farmland and Western Washington Agricultural Association for the Farms, Fish, and Flood Initiative (“3FI”). The Farms, Fish, and Flood Initiative is a collaborative effort between SPF, WWAA, NOAA Fisheries, WDFW, SCD, Skagit County, the Nature Conservancy, and Skagit County Dike District 17. The project was funded in part by the U.S. EPA under a National Estuary Program Watershed Protection and Restoration Grant.

The plan outlines that despite the food and fiber, economic, social and ecosystem benefits the agricultural industry provides to Puget Sound and the Skagit Watershed, farmland continues to be a consumptive land base for all other land uses in Puget Sound and Skagit County:

- Puget Sound has lost 60% of its farmland since 1950

- From 2001 to 2006, while the Growth Management Act has been in effect, approximately 4,300 acres of farmland has been converted to impervious surfaces in Puget Sound.
- From 1982 to 2007 Skagit County lost 15,580 acres; approximately 18.24% of its cropland

To establish a framework for understanding the context in which farmland preservation is being undertaken in Skagit Valley, the document outlines the following agricultural statistics:

- There are approximately 89,000 acres of farmland zoned Ag-NRL in Skagit County, of which, approximately 22,000 acres is covered with impervious surfaces (roads, barns, houses, etc.) and unavailable for cultivation.
- Skagit County agriculture produces a farm gate value of approximately 300 million dollars annually.
- With approximately 12,000 acres of farmland within the Delta devoted to the potato industry, which on average has a four year rotation, there is a minimum of 48,000 acres of farmland needed just for the potato industry.
- Crops such as spinach, beets and cabbage have special isolation requirements of up to 2 miles, in addition to strict crop rotation requirements. Spinach Seed has a crop rotation requirement of up to 14 years in some cases.

The plan's six strategies include: (1) Maintain, strengthen, and expand non-regulatory programs to permanently protect farmland; (2) Develop and implement an agricultural easement with a TFI option for Chinook habitat restoration; (3) Develop and implement approaches to address farmland loss; (4) Maintain, strengthen, and enforce County regulations to protect agriculture; (5) Manage water quality effectively to protect fish, shellfish, and agriculture; and (6) Seek state, federal or international designation for Skagit Valley as a Cultural and Natural Heritage site.

### **SKAGIT FISHERIES ENHANCEMENT GROUP**

[www.skagitfisheries.org](http://www.skagitfisheries.org)

Washington State has fourteen regional fisheries enhancement groups (RFEGs) to engage communities and landowners in salmon recovery. In 1990, Skagit Fisheries Enhancement Group became Skagit County's local RFEG, dedicated to engage communities in habitat restoration. Local landowners are encouraged to reach out to SFEG if they are willing to restore or enhance their property for the benefit of water quality and salmonid habitat. Skagit Fisheries Enhancement Group is always looking for places to hold volunteer planting parties or teach schoolchildren about stewardship and the watersheds in which they live.

### **SKAGIT DELTA TIDEGATES AND FISH INITIATIVE**

The Skagit Delta Tidegates and Fish Initiative (TFI) is a collaborative, multi-stakeholder process convened by Western Washington Agricultural Association in March 2006 for the purpose of identifying pathways and protocols for federal, state, and local permitting of tidegate and floodgate repair and replacement activities within the Skagit and Samish River deltas. The agreement addresses actions at tidegates and floodgate sites that are under the ownership or control of participating drainage, diking, or irrigation districts. The TFI Implementation Agreement represents a formal commitment to develop a delta-wide landscape approach to address tidegate and floodgate maintenance needs in conjunction with estuarine

habitat restoration goals for recover of Endangered Species Act listed Chinook salmon. Principals of the agreement include: Western Washington Agricultural Association, representing participating districts; the National Oceanic and Atmospheric Association's National Marine Fisheries Service; the United States Fish and Wildlife Service; and the Washington State Department of Fish and Wildlife.

### **SKAGIT DRAINAGE AND FISH INITIATIVE**

The Skagit Drainage and Fish Initiative is an agreement that represents a commitment by the Washington Department of Fish and Wildlife and participating Skagit County dike, drainage, and irrigation districts to acknowledge the critical interests and needs of each party with regards to fish protection and the maintenance of drainage infrastructure within the established boundaries of participating districts. It also represents an acknowledgement by the Skagit River Systems Cooperative (SRSC), representing the Swinomish Indian Tribal Community and the Sauk-Suiattle Indian Tribe, of a shared need to develop and maintain effective levels of communication and cooperation in recognition of the vital roles of agriculture and natural resources in sustaining the customs, culture and economic viability of Skagit County, its citizens and the Tribes and their members.

### **STREAM TEAM**

The Stream Team is a group of volunteers enlisted to monitor water quality in a number of Skagit County streams. The program is jointly managed by the Skagit Conservation District and the Department of Ecology (via the Padilla Bay National Estuarine Research Reserve). Stream Team frequently coordinates with the County's Water Quality Monitoring Program.

## Appendix 5. Summary of Public Outreach Efforts

### AUGUST 9, 2011

Skagit County Board of County Commissioners adopts Resolution to consider enrollment in the ESHB 1886 Voluntary Stewardship Program for Critical Areas Protection. Resolution gives direction to:

- Prepare a cost analysis;
- Develop draft Ordinance for consideration by Skagit County Planning Commission & Board of County Commissioners that complies with ESHB 1886;
- Propose modifications to the County's existing Agriculture-Critical Areas Ordinance to simplify, streamline, and reflect the new objectives of VSP

### AUGUST 23, 2011

Skagit County Planning Commission held a public workshop to consider enrollment and to provide input on the development of a draft ordinance. Notice sent to approximately 340 individuals and organizations from the ag-fish postal mailing list, press release listserv, Skagit County Planning Department's distribution list, and Skagit County's Salmon Strategy distribution list.

### OCTOBER 12, 2011

The County's Agricultural Advisory Board voted 7-1 to support enrollment in VSP.

### NOVEMBER 1, 2011

Skagit County Planning Commission held a public hearing and received public testimony and comments on amending Skagit County's Agriculture-Critical Areas Ordinance and enrolling in VSP.

### NOVEMBER 15, 2011

Planning Commission recommends 8-0 that the Board of County Commissioners:

- Adopt code amendments to Skagit County Code 14.04 and 14.24
- Enroll the entirety of Skagit County, and all of its watersheds, in the Voluntary Stewardship Program established by ESHB 1886
- Nominate the Samish and Skagit watersheds for consideration by the Washington State Conservation Commission as priority watersheds

### DECEMBER 19, 2011

Skagit County Board of County Commissioners adopts Ordinance adopting changes to SCC 14.04 and SCC 14.24 and enrolling Skagit County in the ESHB 1886 Voluntary Stewardship Program for Critical Areas Protection.

### MARCH 26, 2012

Press Release "Skagit Fish/Farm Battle Ends"

*The State Growth Management Hearings Board ruled today that Skagit County is protecting farmland riparian habitat consistent with the Growth Management Act, ending the expensive fifteen-year legal dispute that pitted fish against farms. The Growth Board's ruling is based on Skagit County's enrollment in the state's new Voluntary Stewardship Program, which the County sees as a better approach to salmon habitat protection than complex regulations and expensive lawsuits.*

#### **AUGUST 5, 2014**

Skagit 21 televised a Board of County Commissioner VSP Briefing. Skagitonians to Preserve Farmland, Western Washington Agricultural Association, and The Nature Conservancy spoke in favor of moving forward.

#### **AUGUST 6, 2014**

Skagit County requested comments on a draft Resolution that initiates County participation in VSP. The request was sent to The Nature Conservancy, Western Washington Agriculture Association, NOAA, the Washington Department of Fish and Wildlife, Dike District 17, local Tribes, USEPA, the Governor's Office, Washington State Department of Ecology, Washington State Department of Health, the Skagit Conservation District, Skagit County Conservation Futures Advisory Board, Skagit County Agricultural Advisory Board, state legislators, and the Washington State Department of Agriculture.

The County received comment letters from the Skagit County Agricultural Advisory Board, Samish Indian Nation, the Farm, Fish, and Flood Initiative (3FI) oversight team, the Swinomish Indian Tribal Community, and Upper Skagit Indian Tribe

#### **SEPTEMBER 16, 2014**

Skagit County Board of County Commissioners adopts Resolution Initiating County Participation in the State Voluntary Stewardship Program to Protect and Enhance Critical Areas Where Agricultural Activities are conducted. The Resolution gives direction to:

- Create a Watershed Group
- Develop a Work Plan within one year
- Submit to the Washington State Conservation Commission

#### **SEPTEMBER/OCTOBER 2014**

Skagit County distributes a call for Watershed Group applicants to help develop the VSP Work Plan and receives 20 letters of interest.

#### **NOVEMBER 10, 2014**

Skagit County Board of County Commissioners adopts Resolution Appointing Member to the Voluntary Stewardship Program Watershed Group. Group meets over 2015 and 2016 to develop Work Plan.

#### **VSP WORK PLAN PRESENTATIONS**

- October 2015: Skagit Farm Bureau
- March 2016: Skagit Agricultural Summit

- August 2016: Informal Presentation to Statewide VSP Committees
- October 2016: Skagit Watershed Council Board of Directors
- February 2017: Wilbur-Ellis Grower's Meeting
- May 2017: Joint Skagitonians to Preserve Farmland and Western Washington Agricultural Association Board Meeting

#### **DRAFT WORK PLAN COMPONENT DISTRIBUTION**

December 2015: Skagitonians to Preserve Farmland (Allen Rozema), Skagit Conservation District (Carolyn Kelly), Dike District 17 (Daryl Hamburg), Swinomish Tribe (Larry Wasserman), Farm Bureau (Evan Sheffels)

#### **DRAFT WORK PLAN DISTRIBUTION**

August 2016: Skagit Watershed Council Members (Richard Brocksmith), Samish Indian Nation (Todd Woodard), Upper Skagit Indian Tribe (Doreen Maloney), Board of County Commissioners Briefing, Skagit County Agricultural Advisory Board

April/May 2017: Work Plan distributed for public comment; notification of availability placed in Skagit Valley Herald.

## Appendix 6. Watershed Group Meeting Summaries

### JANUARY 22, 2015

This was the VSP Watershed Group kick off meeting. The group introduced themselves and discussed the purpose of the Watershed Group.

Staff reviewed a meeting schedule for the year and presented on the context of VSP, including a background on GMA directives, updates through the years to our CAO, litigation, and the Ruckelshaus process, and opting into VSP.

The background presentation were posted to the County's VSP website.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	N	WG
<i>Bill Dewey</i>	Y	WG
<i>Oscar Graham</i>	Y	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	Y	WG
<i>David Olson</i>	N	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	Y	WG
<i>John Wolden</i>	Y	WG
<i>Dan Berentson</i>	Y	SCPW
<i>Emily Derenne</i>	Y	SCPW
<i>Karen Dubose</i>	Y	SCPW
<i>Josh Greenberg</i>	Y	SCGIS
<i>Rick Haley</i>	Y	SCPW
<i>Betsy Stevenson</i>	Y	SCPDS
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

### FEBRUARY 26, 2015

The group recapped the January meeting, including the context of VSP, GMA directives, CAO updates, litigation, and the Ruckelshaus Process. The group reviewed the meeting schedule for 2015; the group will meet the third Thursday of each month. Each meeting will be a workshop dedicated to necessary Work Plan components. Staff prepared a binder for each Watershed Group participant and reviewed the documents enclosed, including: components of the Work Plan that need to be addressed by statute, the County's existing Ag-CAO, the day's presentations, and resolutions establishing the program and committee. This information was also posted to the VSP website.

Staff presented on County programs related to the CAO and how they came to be, including: The Water Quality Monitoring Program, the Salmon Habitat Monitoring Program, the 2008 GIS Riparian Assessment.

A hard copy of the presentations were included in the binder.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	Y	WG
<i>Erin Ewald (for Bill Dewey)</i>	Y	WG
<i>Oscar Graham</i>	Y	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	Y	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	Y	WG
<i>John Wolden</i>	Y	WG
<i>Josh Greenberg</i>	Y	SCGIS
<i>Mike See</i>	Y	SCPW
<i>Betsy Stevenson</i>	Y	SCPDS
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

## MARCH 16, 2015

The group recapped the February meeting, including the 2015 meeting schedule, the contents of the binders, a quick overview of Skagit County programs related to the Ag-CAO (Water Quality monitoring, Salmon Habitat monitoring, and the 2008 GIS Riparian Assessment), and an overview of the Watershed Group's focus areas.

The group discussed known voluntary measure programs in the basin, including the County's Natural Resources Stewardship Program and Salmon Heritage Program, Conservation District programs, such as CREP, and the Drainage and Tidegate Fish Initiatives. The group discussed the merits and limitations of each program and conditions associated with funding.

The group began a discussion of Measurement Metrics or what could the County track to understand progress in implementation of voluntary measures, e.g. water quality, channel complexity, buffer acreage, including their merits and limitations.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	N	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	Y	WG
<i>Bill Dewey</i>	Y	WG
<i>Oscar Graham</i>	Y	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	N	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	N	WG
<i>John Wolden</i>	N	WG
<i>Emily Derenne</i>	Y	SCPW
<i>Josh Greenberg</i>	Y	SCGIS
<i>Jeff McGowan</i>	Y	SCPW
<i>Rick Haley</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

## APRIL 23, 2015

The group recapped the March meeting, including existing voluntary measure programs (both County and external) in the basin, along with their merits and limitations, and Measurement Metrics.

The group continued to discuss the Measurement Metrics section of the Work Plan in more detail, specifically the merits and limitations of existing monitoring approaches, such as water quality. The County will continue its ambient water quality monitoring program, but it's difficult to tie water quality results directly to the Ag-NRL zoning as other portions of the watershed may affect results.

The group began the discussion of Monitoring Methods. This was an area that was highlighted as a need coming out of previous litigation. Ideas for monitoring of riparian areas include satellite imagery, LiDAR, and aerial photography. The County and many partners contribute to aerial photography being flown every two years, so data is available for our baseline year (2011) and at two year intervals thereafter. The GIS Department can then conduct analysis similar to the 2008 riparian assessment, where they document land uses that are adjacent riparian areas, and see how they change over time.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	Y	WG
<i>Bill Dewey</i>	Y	WG
<i>Oscar Graham</i>	Y	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	N	WG
<i>David Olson</i>	N	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	N	WG
<i>John Wolden</i>	Y	WG
<i>Josh Greenberg</i>	Y	SCGIS
<i>Jeff McGowan</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

The group continued the Voluntary Measures discussion and how to best get dollars on the ground. The discussion included what current incentive programs are lacking, what level of control the landowners have within the voluntary measure, such as a buffer. This will be a large component of the May meeting discussion.

**MAY 28, 2015**

The group reviewed the updated binder contents and new documents posted to the County's VSP website. The group recapped the April meeting, including the updated 2015 meeting schedule, Measurement Metrics, Monitoring Methods, and Voluntary Measures.

The group discussed the Voluntary Measures component of the Work Plan in great detail and how they relate to achieving protection goals and enhancement goals. First was a discussion of the protection goals in the context that protection needs to occur for the County to stay in VSP. The enhancement goals were identified as application of programs that need to adapt if they're not getting on the ground.

Specific programs discussed include grass filter strips, NRSP, CREP, the WSCC Technical Memorandum on Voluntary Incentive Measures, RCPP, Current Use Open Space Taxation, and zoning incentives. It was suggested that a table that outlines all voluntary program specifics, eligibility, match requirements, and conditions of the various funding sources would be good to summarize.

A workshop on the needs of a successful voluntary program identified numerous components of a successful program moving forward. The group discussed components of successful voluntary programs, such as: buffer width flexibility (size and type); working with the farmer on selecting plants so they're compatible with crops; allowing for Dike and Drainage District maintenance of water bodies; the ability to manage beavers; conifers don't always make sense; CREP merits (drawbacks – density, conifers, land can't go back to ag; positives – favorable soil rental rates); emphasis of soil conservation/decreased erosion; program needs to compensate landowners to be a financially attractive option; allow the practices to be programmed by local geography (e.g. adjacent ag uses, different goals for different areas); the ability to manage knotweed and other invasives; allowing for specific prescriptions for both banks (e.g. south side is a priority); the ability to place dredge spoils; and the need for a program liaison to navigate processes.

The group then began the discussion on the Regulatory Backstop. This backstop currently includes the watercourse protection measures in the Ag-CAO. The group reviewed a County handout entitled "Agriculture and Critical Areas: What You Need to Know." This document summarizes the watercourse protection measures for areas of ongoing agriculture. There was discussion and concern shared about not increasing the backstop as it is currently understood by the agricultural community. The group was asked to review the handout and provide feedback.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	N	WG
<i>Tyler Clark</i>	N	WG
<i>Bill Dewey</i>	Y	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	Y	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	Y	WG
<i>John Wolden</i>	Y	WG
<i>Josh Greenberg</i>	Y	SCGIS
<i>Michael See</i>	Y	SCPW
<i>Betsy Stevenson</i>	Y	SCPDS
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

**JUNE 18, 2015**

The group recapped the May meeting, including the Work Plan components of Measurement Metrics, Monitoring Methods, and Voluntary Methods. Staff presented a recap of how the County arrived at VSP, including GMA goals, the Skagit County Ag-CAO updates, court decisions, legislative timeout, the Ruckelshaus process, and opting in to VSP. The group reviewed the required components of a VSP Work Plan as outlined in the statute and where VSP applies, i.e. in Ag-NRL, RR-NRL, and excluding man made ditches in Irrigation Districts.

The group walked through a draft of the Work Plan. Many sections are yet to be spelled out, but the general structure is set up, based on the necessary Work Plan components listed in the VSP statute.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	N	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	Y	WG
<i>Bill Dewey</i>	N	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	N	WG
<i>Oscar Lagerlund</i>	N	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	N	WG
<i>John Wolden</i>	N	WG
<i>Emily Derenne</i>	Y	SCPW
<i>Josh Greenberg</i>	Y	SCGIS
<i>Michael See</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

The group continued the Voluntary Measures discussion related to programs and program components of voluntary measure implementation, including: the program needs financial incentives to achieve enrollment; examining open space tax incentives; additional mechanisms to compensate landowners, such as prorated property taxes, utilizing the current use open space tax incentive, and using soil rental rate as a template; the need for east vs west county prescriptions; the use of Conservation Easements; the possibility of mirroring CREP with more flexibility; the use of temporary easements, permanent easements, and fee simple acquisitions, conservation subdivisions, or friendly condemnations; capturing all existing work in the basin for enhancement goals; targeted enhancement/focused efforts for areas of maximum potential; list all projects that have occurred since 2011; regulatory backstop needs to be enforceable, easy to understand, have a basic level of stewardship that all can comply; develop literature on buying property in Skagit County.

**AUGUST 27, 2015**

The group reviewed the rest of the year's meeting schedule, including the September and October meeting topics. The goal is to wrap up some discussions that will inform the missing parts of the Work Plan. The group reviewed Work Plan components covered in previous meetings, including: Measurement Metrics, Monitoring Methods, Voluntary Measures, and Regulatory Backstop.

The Measurement Metrics are the benchmarks that, within ten years of funding, are designed to result in the protection of critical area functions and the enhancement of critical area functions and values through voluntary incentive based measures. The plan also needs to establish a form of baseline monitoring to give the ability to track the measurable benchmarks. The group again reviewed the various forms Monitoring Methods such as our water quality monitoring program, salmon habitat monitoring and associated merits and limitations. The group reiterated that the Monitoring Methods have to be cost effective and repeatable. Skagit County's GIS Department staff presented on the aerial photography Monitoring Method concept.

The group also reviewed the work completed by the Watershed Group on voluntary measures, both existing and potential. The implementation of the measures is how to reach enhancement goals. The group reviewed the discussion on Regulatory Backstop to date. The existing regulatory backstop is the Ag-CAO. Staff had asked for suggested edits to the County's pamphlet on watercourse protection measures. Thanks were given to those that responded.

The group then paged through a current draft of the Work Plan.

The group began the discussion on Adaptive Management. This was a highlighted need coming out of the previous litigation. The group discussed the concept of Adaptive Management and how it could be applied to County's VSP.

**OCTOBER 22, 2015**

\*No Sign In Sheet

The group reviewed some housekeeping items. This is the last regularly scheduled VSP watershed group meeting. Thanks were given to everyone that has participated. More meetings will take place on an as needed basis, probably quarterly in 2016.

Staff shared news from statewide VSP activities, including information on the structure of the Statewide Technical Panel, Statewide Advisory Group, and procedures for submitting the Work Plan.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	N	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	Y	WG
<i>Bill Dewey</i>	N	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	N	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	N	WG
<i>Jason Vander Kooy</i>	Y	WG
<i>John Wolden</i>	N	WG
<i>Dan Berentson</i>	Y	SCPW
<i>Emily Derenne</i>	Y	SCPW
<i>Josh Greenberg</i>	Y	SCGIS
<i>Jeff McGowan</i>	Y	SCPW
<i>Michael See</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPAO

Erin presented on the status of the Thurston County VSP Work Plan as she's on that committee.

The group walked through a complete draft of the Work Plan to ensure that all comments have either been captured or addressed.

The group discussed future Watershed Group meetings. Staff will be conducting outreach on the plan and the group will need to meet over 2016 to review the input received; probably on a quarterly basis.

**MARCH 24, 2016**

The group reviewed the Draft Work Plan, including: Background (GMA, Critical Areas, Ag-CAO), Goals and Benchmarks (Participation, Protection, Enhancement), Voluntary Measures (Coordination and Outreach, Financial Incentives, Technical Assistance), the Regulatory Backstop (Ag-CAO, other codes and laws), and Monitoring and Adaptive Management.

The group discussed new components of the Work Plan that were added to orient the readers to Critical Areas and Agricultural in Skagit County, such as the County and Environmental Context and challenges to ag viability, such as drainage. The group also reviewed the conceptual goals for all five critical areas in the County.

Staff shared an update of the 2/17 Joint Statewide VSP Technical Panel and Stakeholder Advisory meetings recap. At the meeting, the statewide groups discuss the Work Plan template, SEPA review, and informal Technical Panel presentations.

The group discussed the Maintaining and Enhancing the Viability of Agriculture section. The group shared numerous potential references that could strengthen the section. The group also discussed the drafted list of good things agriculture is doing in the Valley and how to incorporate that into the plan.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	Y	WG
<i>Bill Dewey</i>	Y	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	Y	WG
<i>Oscar Lagerlund</i>	N	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	Y	WG
<i>John Wolden</i>	N	WG
<i>Dan Berentson</i>	Y	SCPW
<i>Emily Derenne</i>	Y	SCPW
<i>Josh Greenberg</i>	Y	SCGIS
<i>Betsy Stevenson</i>	Y	SCPDS
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPDS
<i>Evan Sheffels</i>	Y	WFB

## JUNE 6, 2016

The group recapped the 2015 and 2016 meetings.

Staff presented information from statewide activities, including information coming out of Statewide Advisory Committee and Technical Panel meetings, such as the Work Plan template.

The group walked through a draft of the Work Plan, including the Background, Goals and Benchmarks, Voluntary Measures, Regulatory Backstop, Monitoring, Reporting, Adaptive Management, the Viability of Agriculture, and Appendices.

The group reviewed historical information on voluntary measures completed in the basin, e.g. historical enrollments in CREP and NRSP and how those related to enhancement goal setting.

Staff shared the scheduled outreach efforts and summarized feedback received thus far.

The group continued the discussion of the Maintain and Enhance the Viability of Agriculture section and programs and references to incorporate, such as WSU Mount Vernon Extension programs, all agriculture education programs (such as Skagit Valley College, 4-H, SCEA, rural landowner workshops), Port of Skagit Programs (such as the Innovative Partnership Zone), water resources related concerns (drainage and irrigation), agriculture census programs by the USDA and WSDA, economic indicators, comprehensive plan policies, ag zoning, supporting drainage infrastructure, maintain the PDR program, shellfish education, and EDASC programs.

The group discussed future meeting schedules; they will continue to meet on an as needed basis, with the next meeting being later in the year.

<b>Name</b>	<b>Attendance</b>	<b>Affiliation</b>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	N	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	N	WG
<i>Bill Dewey</i>	N	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	N	WG
<i>Oscar Lagerlund</i>	Y	WG
<i>David Olson</i>	Y	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	N	WG
<i>John Wolden</i>	Y	WG
<i>Karen Dubose</i>	Y	SCPW
<i>Josh Greenberg</i>	Y	SCGIS
<i>Michael See</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPDS

**OCTOBER 27, 2016**

The group discussed the Work Plan distribution and Outreach efforts. The Work Plan was shared with the Board of County Commissioners, Public Works Director, the Local Technical Panel (Skagit Conservation District (Carolyn Kelly), Skagitians to Preserve Farmland (Allen Rozema), Dike District 17 (Daryl Hamburg), the Skagit County Agricultural Advisory Board, the Upper Skagit Indian Tribe, the Samish Indian Nation, the Swinomish Indian Tribal Community, the Statewide Advisory Committee and Technical Plan, and the Skagit Watershed members and Board of Directors.

The group then discussed the feedback that was received and how that was incorporated or addressed, including: a more robust agricultural narrative (federal programs, educational programs, Port of Skagit activities, cross referencing the Comprehensive Plan), clarifying the role of the local Technical Panel, a strengthened description of all five critical areas, the idea of protecting vs. mandating buffers, aerial photography analysis as a way of measure protection vs. water quality, enhancement benchmarks being status quo, GIS methods for waterbodies up to 40' treated as a single thread, and the idea of incorporating LiDAR data for a hydrology update.

The group reviewed Work Plan edits to identify changes between the last version and the current version. The Executive Summary contains additional language on protection, the Ag Narrative now includes information on the I-5 agricultural scenic designation, the importance and weight of FWHCA was added to the GMA and Critical Areas section, additional GIS methods were added to the protection benchmark section, the table of VSP applicability was updated to explicitly show how all five critical areas are being addressed, the buffer enhancement benchmark section was updated to add additional GIS methodology and the table was updated to be cumulative, the Viability of Agriculture section was updated to capture the list of programs discussed at the last meeting.

The group continued the Viability of Agriculture section and additional information sources to reference. The current contents include an explanation of regulatory certainty, land use regulation/zoning, water resources (irrigation and drainage), PDR program, current use tax incentive, flexible conservation measures, economic development, and reporting requirements. Staff shared the recent VSP/Ag Viability guidance, including the Washington State Department of Agriculture and Washington State Conservation Commission publications on the topic. The group discussed how to incorporate this into the section.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	Y	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	N	WG
<i>Bill Dewey</i>	Y	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	N	WG
<i>Oscar Lagerlund</i>	Y	WG
<i>David Olson</i>	N	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	Y	WG
<i>John Wolden</i>	Y	WG
<i>Dan Berentson</i>	Y	SCPW
<i>Emily Derenne</i>	Y	SCPW
<i>Karen Dubose</i>	Y	SCPW
<i>Michael See</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPDS

## JUNE 26, 2017

The watershed group met quickly to discuss feedback the County received from the VSP Technical Panel and the Conservation Commission about the submitted work plan, and reviewed the proposed changes to the work plan.

<i>Name</i>	<i>Attendance</i>	<i>Affiliation</i>
<i>John Anderson</i>	Y	WG
<i>Jodi Bluhm</i>	N	WG
<i>Ann Childs</i>	Y	WG
<i>Tyler Clark</i>	N	WG
<i>Bill Dewey</i>	N	WG
<i>Oscar Graham</i>	N	WG
<i>Kenny Johnson</i>	N	WG
<i>Oscar Lagerlund</i>	N	WG
<i>David Olson</i>	N	WG
<i>Jeff Schwab</i>	Y	WG
<i>Jason Vander Kooy</i>	N	WG
<i>John Wolden</i>	N	WG
<i>Dan Berentson</i>	Y	SCPW
<i>Emily Derenne</i>	N	SCPW
<i>Karen Dubose</i>	N	SCPW
<i>Michael See</i>	Y	SCPW
<i>Kara Symonds</i>	Y	SCPW
<i>Ryan Walters</i>	Y	SCPDS

## Appendix 7. Critical Areas and Flood Damage Prevention Code

Skagit County Code Chapters 14.24 Critical Areas and 14.34 Flood Damage Prevention are incorporated by reference in the Regulatory Backstop section of this work plan. Current editions of these chapters are included here for easy reference.

## Chapter 14.24

### CRITICAL AREAS ORDINANCE\*

Sections:

- 14.24.010 Introduction.
- 14.24.020 Title and purpose.
- 14.24.030 Authority.
- 14.24.040 Applicability, jurisdiction and coordination.
- 14.24.050 Resource information and maps.
- 14.24.060 Authorizations required.
- 14.24.070 Activities allowed without standard review.
- 14.24.080 Standard critical areas review and site assessment procedures.
- 14.24.090 Protected critical areas (PCA) requirements.
- 14.24.100 Critical areas determination and conditions of approval.
- 14.24.110 County regulation of forest practices for the protection of critical areas.
- 14.24.120 Ongoing agriculture.
- 14.24.130 Hazard tree removal.
- 14.24.140 Variances.
- 14.24.150 Reasonable use exception.
- 14.24.160 Public notice and records.
- 14.24.170 Incentives.
- 14.24.200 Wetlands designations.
- 14.24.210 Wetlands classification.
- 14.24.220 Wetlands site assessment requirements.
- 14.24.230 Wetland protection standards.
- 14.24.240 Wetland performance-based buffer alternatives and mitigation standards.
- 14.24.250 Wetland alternative compensation projects.
- 14.24.300 Aquifer recharge areas intent.
- 14.24.310 Aquifer recharge areas designations.
- 14.24.320 Aquifer recharge areas prohibited activities.
- 14.24.330 Aquifer recharge areas site assessment requirements.
- 14.24.340 Aquifer recharge areas impact mitigation.
- 14.24.350 Flow-sensitive basins.
- 14.24.360 Flow-sensitive basin water withdrawal mitigation.
- 14.24.370 Delineation of flow-sensitive basins.
- 14.24.380 Seawater intrusion areas.
- 14.24.400 Geologically hazardous areas designations.
- 14.24.410 Geologically hazardous areas known or suspected risk.
- 14.24.420 Geologically hazardous areas site assessment requirements.
- 14.24.430 Geologically hazardous area mitigation standards.
- 14.24.500 Fish and wildlife habitat conservation area designations.
- 14.24.510 Fish and wildlife habitat conservation area water type classification.
- 14.24.520 Fish and wildlife habitat conservation area site assessment requirements.
- 14.24.530 Fish and wildlife habitat conservation area protection standards.
- 14.24.540 Fish and wildlife habitat conservation area performance-based buffer alternatives and mitigation standards.
- 14.24.600 Frequently flooded areas designations.
- 14.24.610 Frequently flooded areas initial project review.
- 14.24.620 Frequently flooded areas development requirements.
- 14.24.630 Frequently flooded areas protection standards.
- 14.24.700 Compliance tracking.
- 14.24.710 Fees.
- 14.24.720 Administrative Official.
- 14.24.730 Appeals from the Administrative Official.

14.24.740 Interdisciplinary team.

\* Prior legislation: Ordinances 17938 (Atch. F.), 18069 Appx. A, R20020135, O20020007, O20030020, O20040011 and O20070009.

**14.24.010 Introduction.**

The ordinance codified in this Chapter was developed under the directives of the Growth Management Act to designate and protect critical areas. “Critical areas” are defined as wetlands, aquifer recharge areas, frequently flooded areas, geologically hazardous areas, and fish and wildlife habitat conservation areas. Some of these areas, such as geologic hazards and frequently flooded areas, are critical because of the hazard they represent to public health. Others, such as fish and wildlife habitats and wetlands, are critical because of their public value.

Critical areas are dynamic natural systems that are a part of Skagit County’s changing landscape. Critical areas will be designated by definition and then classified through site assessments so that they can be identified using scientifically based criteria and protected. The use of site assessments to confirm the actual presence and classification of critical areas is central to the management approach developed under this Chapter.

This Chapter allows the staff of Planning and Development Services to provide site visits, preliminary reviews, and pre-application meetings to assist in the identification of critical areas. In the event that hardships and grievances occur, this Chapter contains provisions to allow for variances, reasonable use exceptions and appeals. Through this Chapter, Skagit County will work with the landowner in the management of critical areas.

This Chapter represents a significant step in the management of critical areas. Incentives will play an ever-increasing role in enlisting landowner participation in conservation programs. A Countywide education program may be developed to alert the community to the valuable functions and formidable hazards associated with critical areas. Local, State and Federal governments must continue to work towards the consolidation and coordination of regulatory requirements. (Ord. O20080014 (part))

**14.24.020 Title and purpose.**

This Chapter shall be known as the Critical Areas Ordinance (CAO) of Skagit County, Washington, and is adopted to assist in conserving the value of property, safeguarding the public welfare and providing protection for the following critical areas:

- (1) Wetlands. Wetlands serve many important ecological and environmental functions and help to protect public health, safety and welfare by providing flood storage and conveyance and erosion control, while also providing fish and wildlife habitat, recreation, water quality protection, water storage, education, scientific research opportunities and other public benefits. It is the purpose of this Chapter to protect these functions and values.
- (2) Frequently Flooded Areas. It is the purpose of this Chapter to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas according to the provisions established under Chapter 14.34 SCC (Flood Damage Prevention).
- (3) Aquifer Recharge Areas. Potable water is an essential life-sustaining element. Much of Skagit County’s drinking water comes from groundwater supplies, which also provide base flows to protect aquatic resources. Once groundwater is contaminated or depleted, it is difficult, costly, and sometimes impossible to clean up or to recharge. It is the purpose of this Chapter to prevent contamination and depletion, and to avoid exorbitant cleanup costs, hardships and potential physical harm to people and aquatic resources.
- (4) Geologically Hazardous Areas. Geologically hazardous areas include areas susceptible to the effects of erosion, sliding, earthquake, or other geologic events. They pose a threat to the health and safety of citizens when incompatible residential, commercial, industrial, or infrastructure development is sited in areas of a hazard. It is the purpose of this Chapter to protect life, property, and resources when steep slopes are destabilized by inappropriate activities and development or when structures or facilities are sited in areas susceptible to natural or human-caused geologic events. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices so that risks to health and safety are acceptable. When technology cannot reduce risks to acceptable levels, building and other construction within identified geologically hazardous areas shall be prohibited.

(5) Fish and Wildlife Habitat Conservation Areas. Skagit County currently supports the highest wildlife species diversity and population numbers of any County in Washington State. In addition to their intrinsic value, certain species of fish and wildlife represent important historic, cultural, recreational and economic resources. It is the purpose of this Chapter to protect fish and wildlife populations and their associated habitats and provide special consideration to conservation or protection measures necessary to preserve or enhance anadromous species. (Ord. O20080014 (part))

**14.24.030 Authority.**

The ordinance codified in this Chapter is adopted under the authority of Chapters 36.70 and 36.70A RCW, and Article 11 of the Washington State Constitution. (Ord. O20080014 (part))

**14.24.040 Applicability, jurisdiction and coordination.**

(1) Applicability. The provisions of this Chapter shall be consistently applied to any land use or development under County jurisdiction within the geographical areas that meet the definitions and criteria for critical areas regulation as set forth in this Chapter.

(2) Relationship to other Federal, State, Tribal and Local Jurisdictional Agencies' Regulations. Many State, Federal and regional regulations apply to projects conducted within critical areas. Uses otherwise allowed by County codes do not eliminate other agency regulatory requirements.

(3) Jurisdictional Substitution. In cases where other agencies possess jurisdictional control over critical areas and it is determined by the Administrative Official that the permit conditions satisfy the requirements of this Chapter, those requirements may substitute for the requirements of this Chapter. Such requirements shall be a condition of critical areas approval and be enforceable by the County. Such agencies may include, but are not limited to, the United States Army Corps of Engineers, Environmental Protection Agency, and Fish and Wildlife Service; local Tribes, and the Washington State Department of Ecology, Department of Natural Resources and Department of Fish and Wildlife. The County shall notify the applicant in writing when any such substitution is made.

(4) Jurisdictional Coordination. In addition to the provisions established in this Chapter, the County shall coordinate its own programs with those of other public and private organizations to enhance management of Critical Areas in Skagit County. (Ord. O20080014 (part))

**14.24.050 Resource information and maps.**

(1) With the exception of the Flood Insurance Rate Map used to designate certain frequently flooded areas, the Skagit County Final Shoreline Area Designation Map (5/83 or as revised) and maps of flow-sensitive basins prepared by the Administrative Official pursuant to SCC 14.24.370, Skagit County's critical areas maps are provided only as a general guide to alert the user to the possible distribution, location and extent of critical areas. Map identification of critical areas provides only approximate boundaries and locations in Skagit County. The actual locations and boundaries of critical areas, as well as their quality and quantity, shall be based upon the presence of the features applicable to each critical areas element in this Chapter. Maps shall not be considered a regulatory standard or substitute for site-specific assessments. The application of definitions, methodologies and performance standards pursuant to the site assessment requirements provided in this Chapter is the controlling factor in determining the actual presence and extent of critical areas.

(2) Skagit County will utilize data from natural resource agencies as a source of best available science (BAS) to develop critical areas maps. Maps will be updated when new data becomes available from resource agencies. (Ord. O20080014 (part))

**14.24.060 Authorizations required.**

With the exception of activities identified as allowed without standard review under SCC 14.24.070, any land use activity that can impair the functions and values of critical areas or their buffers, including suspect or known geologically hazardous areas, through a development activity or by disturbance of the soil or water, and/or by removal of, or damage to, existing vegetation, shall require critical areas review and written authorization pursuant to this Chapter. Authorizations required under this Chapter overlay other permit and approval requirements of the Skagit County Code. Regardless of whether a County development permit or approval is required, any proposed alteration that can adversely affect a critical area or its standard buffer must comply with the substantive and procedural requirements of this Chapter. Critical areas review pursuant to this Chapter shall be conducted as part of

the underlying permit or approval, where applicable. It is the responsibility of the landowner, or designee, who conducts or proposes to undertake land use activities that can adversely impact critical areas or their buffers to obtain County authorization prior to commencing such activities.

- (1) No land use development permit, land division, development approval, or other County authorization required by County ordinance shall be granted until the applicant has demonstrated compliance with the applicable provisions of this Chapter.
- (2) Conflicts with Other Provisions. If any provision of this Chapter conflicts with any other applicable provision of the Skagit County Code, the more restrictive shall apply unless specifically excepted in this Chapter.
- (3) SEPA Compliance. The goals, policies and purposes set forth in this Chapter shall be considered policies of Skagit County under the State Environmental Policy Act. When applicable the applicant must meet SEPA requirements pursuant to SCC Chapter 16.12.
- (4) Other Permits Required. It is recognized that many City, County, State, and/or Federal permit conditions may apply to the proposed action, and that compliance with the provisions of this Chapter may not necessarily constitute compliance with other such requirements. (Ord. O20080014 (part))

**14.24.070 Activities allowed without standard review.**

The following developments, land use activities and associated uses are allowed without standard critical areas review; provided, that they are consistent with other applicable provisions of this Chapter and other chapters of the Skagit County Code. Some of the activities listed within this Section may, however, require a floodplain development permit if within the special flood hazard area (SFHA), and therefore require a habitat impact assessment pursuant to SCC 14.34.220. All activities that do not require standard critical areas review shall be carried out in ways that cause the least impact to critical areas and their buffers. If any damage is caused to a critical area or buffer in connection with such activity, the critical area and its buffer must be restored to the extent feasible. To be allowed without standard review does not give permission to destroy a critical area or ignore risk. Proponents of such activities shall be responsible for notifying the Administrative Official if any damage occurs and shall provide all necessary restoration or mitigation.

- (1) Emergencies That Threaten the Public Health, Safety and Welfare. An “emergency” is an unanticipated and imminent threat to the public health or safety or to the environment which requires immediate action within a period of time too short to allow full compliance with this Chapter. Emergency actions that create an impact to a critical area or its buffer shall use reasonable methods that can address the emergency but also that have the least possible impact to the critical area or its buffer. The responsible party shall restore the critical area and buffer after the emergency to the extent feasible. The person or agency undertaking such action shall notify the Administrative Official within 1 working day or as soon as practical following commencement of the emergency activity. Following such notification, the Administrative Official shall determine if the action taken was within the scope of the emergency actions allowed in this Subsection. If the Administrative Official determines that the action taken or any part of the action taken was beyond the scope of allowed emergency actions, then the enforcement provisions of Chapter 14.44 SCC (Enforcement/Penalties) shall apply.
- (2) Existing activities defined as ongoing agriculture on designated agricultural land, including related development and activities which do not result in expansion into a critical area or its buffer and which do not result in significant adverse impacts to a critical area or its buffer; provided, that such activities comply with the provisions of SCC 14.24.120.

New development and/or expansion of existing agricultural operations shall comply with both the substantive and procedural provisions of this Chapter. Existing and ongoing agricultural activities that result in significant adverse impacts to a critical area or its buffer shall not be allowed without standard review under this Chapter.

- (3) Normal and routine maintenance or repair of existing structures, utilities, sewage disposal systems, potable water systems, drainage facilities, detention/retention ponds, or public and private roads and driveways associated with pre-existing residential or commercial development, provided any maintenance or repair activities shall use best management practices (BMPs) with the least amount of potential impact to the critical areas and any impact to a critical area or its buffer shall be restored after the maintenance to the extent feasible.

- (4) Normal maintenance, repair, or operation of existing structures, facilities, and improved areas accessory to a single-family residential use, provided any maintenance or repair activities shall use reasonable methods with the least amount of potential impact to the critical areas and any impact to a critical area or its buffer shall be restored after the maintenance to the extent feasible. This allowance shall not be construed as applying to agricultural activities undertaken outside of the Agriculture-NRL zoning district.
- (5) Modification of an existing single-family residence that does not change the use from residential, does not expand the building footprint and does not adversely impact critical areas or their buffers.
- (6) Modification of an existing structure other than a single-family residence which does not expand the building footprint, alter the use or increase septic effluent, pursuant to the requirements of the nonconforming use and structure provisions in Chapter 14.16 SCC, and does not adversely impact critical areas or their buffers.
- (7) Provided the requirements of SCC 14.24.120(4)(d) are met for ongoing agriculture, the lawful operation and maintenance of public and private diking and drainage systems which protect life and property along the Skagit and Samish Rivers and tidal estuaries in Skagit County. This exemption applies to the existing structures and design prism of levees, dikes, and artificial watercourses 40 feet landward of the landward toe of the structure or facility and 40 feet waterward of the waterward toe of the structure, measured horizontally from the face of the levee, dike or bank of the artificial drainage structure toward the ordinary high water mark. The exempt area for operation and maintenance may be managed to meet Federal standards for funding assistance established by the United States Army Corps of Engineers under Public Law 84-99 or other laws and regulations adopted to guide the diking and drainage functions. This exemption does not apply to public or private activities that expand the levee, dike, or drain beyond its design characteristics as of June 1, 1999, the time of adoption of this Subsection; nor activities that expand or create new facilities.
- (8) Education and scientific research activities which do not adversely impact critical areas or their buffers.
- (9) Site investigation work necessary for land use applications such as surveys, soil logs and other related activities which does not adversely impact critical areas or their buffers. In every case, critical areas impacts shall be minimized and disturbed areas shall be immediately restored.
- (10) Activities adjacent to artificial watercourses which are constructed and actively maintained for irrigation and drainage; provided, that any activity shall comply with Chapter 77.55 RCW by securing written approval from the State Department of Fish and Wildlife; and provided further, that the activity must also comply with all applicable State and local drainage, erosion and sedimentation control requirements for water quality. The operator shall notify the Administrative Official in writing regarding the location and nature of anticipated activities a minimum of 14 days prior to commencing any such activity. Such notification shall be a condition for allowance of this activity without standard review. This allowance only applies to activities not subject to SCC 14.24.120(4)(d).
- (11) Maintenance activities such as mowing and normal pruning; provided, that such maintenance activities are limited to existing landscaping improvements and do not expand into critical areas or associated buffers, do not expose soils, do not alter topography, do not destroy or clear native vegetation, and do not diminish water quality or quantity. This allowance shall not be construed as applying to agricultural activities undertaken outside the Agriculture-NRL zoning district.
- (12) Fish, wildlife, wetland and/or riparian enhancement activities not required as mitigation; provided, that the project is approved by the U.S. Department of Fish and Wildlife, U.S. Army Corps of Engineers, the Washington State Department of Fish and Wildlife or the Washington State Department of Ecology. (Ord. O20110013 Atch. A (part); Ord. O20110008 (part); Ord. O20080014 (part))

**14.24.080 Standard critical areas review and site assessment procedures.**

- (1) Determination That an Activity Requires Standard Review. All applications for approval of activities requiring written authorization pursuant to SCC 14.24.060 shall require the submission of a critical areas checklist completed and filed by the applicant on the forms provided by Planning and Development Services. If not otherwise required, all applications for critical areas review shall include a description of the proposed activity and a site plan showing the location of the proposed activity and associated area of disturbance in relation to all known critical areas or critical areas indicators. Upon receipt of the application, the Administrative Official shall determine whether

the proposed activity fits within any of the activities allowed without standard review found in SCC 14.24.070. If the proposed activity is so allowed and meets the associated conditions for such an allowance, no other critical areas review shall be required, except as necessary for the Administrative Official to ensure that any conditions for such an allowance are met in practice. The Administrative Official shall note this determination in the application file and provide written authorization for the project or activity to proceed as proposed in the application when undertaken in accordance with any conditions for such an allowance.

(2) Review Procedures. Upon determination that the proposed activity is not allowed without standard review, and upon receipt of a completed critical areas checklist or a complete critical areas review application, the Administrative Official shall use the following method to determine whether critical areas or their required buffers are within 200 feet or a distance otherwise specified in this Chapter or may be affected by the proposed activity:

- (a) Review the critical areas checklist together with the maps and other critical areas resources identified in the relevant sections of this Chapter; and
- (b) Complete the Critical Areas Staff Checklist; and
- (c) Inspect the site; and
- (d) Complete the Critical Areas Field Indicator form.

(3) Determination That Critical Areas Are Not Present or Affected.

- (a) If the Administrative Official determines that critical areas or critical area buffers are not present within 200 feet of the proposed activity or within a distance otherwise specified in this Chapter; or
- (b) The project does not expand an existing single-family residence by more than 200 square feet of floor area and does not adversely impact or encroach into critical areas or their buffers; or
- (c) The project does not expand an existing structure, other than a single-family residence, by more than 200 square feet of floor area, does not alter the use or increase septic effluent, pursuant to the nonconforming use and structure provisions of Chapter 14.16 SCC, and does not adversely impact or encroach into critical areas or their buffers; then
- (d) The review required pursuant to this Chapter is complete. The Administrative Official shall ensure that the proposed activity is undertaken as described in the application and as shown on the site plan. The determination shall be noted in the application file and written authorization shall be provided. This determination shall not constitute approval of any use or activity nor its compliance with the requirements of this Chapter, outside the scope of that stated in the application. Any proposed change in use or scope of activity from that contained in the application shall be subject to further review under this Chapter.

(4) Determination That Critical Areas Are Present or Affected. If the Administrative Official determines that critical area indicators are present within 200 feet of the proposed activity or within a distance otherwise specified in this Chapter, then the Administrative Official shall note this determination in the application file and the applicant shall be required to provide the critical areas site assessment specified in this Chapter. Development of a site assessment may precede a County site visit; provided, that no disturbance of vegetation or land surface occurs prior to County authorization. If the applicant chooses, the site assessment may be limited to 300 feet surrounding a proposed development only if there are no other activities occurring or proposed on the remainder of the parcel which are in conflict with this Chapter. If the applicant, together with assistance from the Administrative Official, cannot obtain permission for access to properties within 300 feet of the project area, then the site assessment may also be limited accordingly. The site assessment shall be completed as follows:

- (a) The site assessment shall be prepared by a qualified professional for the type of critical area or areas involved and shall contain the information specified for each type of critical area. The qualified professional may consult with the Administrative Official prior to or during preparation of the site assessment to obtain County approval of modifications to the contents of the site assessment.

(b) The site assessment shall use scientifically valid methods and studies in the analysis of critical areas data and field reconnaissance and reference the source of science used.

(c) The site assessment shall include:

(i) Project description that includes a detailed narrative describing the project, its relationship to the critical area and its potential impact to the critical area; and

(ii) A copy of the site plan for the project proposal including a map to scale depicting critical areas, buffers, the development proposal, and any areas to be cleared; and

(iii) Identification and characterization of all critical areas and buffers adjacent to the proposed project area; and

(iv) An assessment of the probable cumulative impacts to critical areas resulting from development of the site and the proposed development; and

(v) A description of the proposed stormwater management plan for the development and consideration of impacts to drainage alterations; and

(vi) A description of efforts made to apply mitigation sequencing pursuant to Subsection (6)(b) of this Section; and

(vii) A proposed mitigation plan including land use restrictions and landowner management, maintenance and monitoring responsibilities; and

(viii) Regulatory analysis including a discussion of any Federal, State, Tribal, and/or local requirements, including but not limited to the Shoreline Management Master Program, or special management recommendations which have been developed for species and/or habitats located on the site.

(ix) If necessary, designate a maintenance corridor to provide an area for construction and maintenance of buildings and other structures. The standard width of the maintenance corridor shall be 15 feet. This distance may be modified with approval of the Administrative Official. The following may be allowed within the maintenance corridor area:

(A) Landscaping with non-invasive species only;

(B) Uncovered decks;

(C) Building overhangs if such overhangs do not extend more than 18 inches into the setback area;

(D) Impervious ground surfaces, such as driveways and patios; provided, that such improvements may be subject to special drainage provisions adopted for the various critical areas; and

(E) Trails.

(d) If necessary to ensure compliance with this Chapter, the Administrative Official may require additional information from the applicant, separate from the critical areas site assessment.

(5) General Mitigation Requirements.

(a) Mitigation. All proposed alterations to critical areas or associated buffers shall require mitigation sufficient to provide for and maintain the functions and values of the critical area or to prevent risk from a critical areas hazard and shall give adequate consideration to the reasonable and economically viable use of the property.

(b) Mitigation Sequence. The sequence of mitigation is defined below:

- (i) Avoid the impact altogether by not taking a certain action or parts of an action;
- (ii) Minimize the impacts by limiting the degree or magnitude of the action and its implementation by using appropriate technology, or by taking affirmative steps to avoid or reduce impacts;
- (iii) Rectify the impact by repairing, rehabilitating or restoring the affected environment to the conditions existing at the time of the initiation of the project or activity;
- (iv) Reduce or eliminate the impact over time by preservation and maintenance operations during the life of the action;
- (v) Compensate for the impact by replacing, enhancing, or providing substitute resources or environments.

(6) Financial Assurance. The Administrative Official shall require the mitigation proposed in the site assessment to be completed prior to final approval of the development permit. For all projects with an estimated mitigation cost of \$10,000 or more, the Administrative Official shall require financial assurance which will guarantee compliance with the mitigation plan if the mitigation proposed in the site assessment cannot be completed prior to final approval of the development permit. Financial assurance shall be in the form of either a surety bond, performance bond, assignment of savings account or an irrevocable letter of credit guaranteed by an acceptable financial institution with terms and conditions acceptable to the County Prosecuting Attorney, shall be in the amount of 125% of the estimated cost of the uncompleted actions or construction, and shall be assigned in favor of Skagit County Planning and Development Services. The term of the financial assurance shall remain in place until the required mitigation is complete. (Ord. O20080014 (part))

**14.24.090 Protected critical areas (PCA) requirements.**

(1) PCA. Approval of projects which trigger a development permit and/or other land use activities that require critical areas site assessment(s) shall require the identification and designation of PCAs. PCAs shall include all critical areas and their associated buffers as well as all areas on the parcel not investigated for critical areas. PCAs shall be depicted on a site plan, suitable for recording, and shall include all critical areas and associated buffers which have been identified through the site assessment process.

(a) The PCA is to be left undisturbed in its natural state. No clearing, grading, filling, logging, or removal of woody material; building; construction or road construction of any kind; planting of non-native vegetation or occupation by livestock is allowed within the PCA areas except as specifically permitted by Skagit County on a case-by-case basis.

(2) PCA Field Identification and Buffer Edge Markers.

(a) Temporary Markers. During construction phases of development, distinct temporary marking consisting of flagging and/or staking shall be maintained along the outer limits of the delineated PCA or the limits of the proposed site disturbance outside of the PCA. Prior to the start of construction activity, and as necessary during construction, temporary markings shall be inspected by the Administrative Official or qualified professional. Written confirmation is to be included in the record as to whether or not the flagging has been installed consistent with the permit requirements prior to commencement of the permitted activity.

(b) Permanent Buffer Edge Markers. Except as provided under Subsection (2)(b)(i) of this Section, the outer edges of all PCAs, with the exception of aquifer recharge areas, shall be clearly marked on-site by the applicant or landowner with permanent stakes and critical areas markers. Critical areas markers may be either approved critical areas signs or inexpensive steel posts painted a standard color approved by the Administrative Official that is clearly identifiable as a critical areas marker. Installation of permanent markers shall be the responsibility of the landowner.

(i) The Administrative Official may waive or modify the requirement for permanent buffer edge markers; provided, that any such decision shall be based on a site-specific determination that future verification of PCA locations will not be substantially more difficult without the placement of permanent

markers and that such waiver or modification will not result in reduced long-term protection of critical areas.

(ii) Where such permanent markers are required, the Administrative Official shall specify their frequency of placement and general location. Permanent markers shall be placed to locate the edge of the PCA to an approximate accuracy of within 5 percent of the specified buffer width or within 5 feet, whichever is larger. The spacing intervals of the markers shall be such as to provide comparable accuracy of line-of-sight determination of buffer edges. The locations of all required stakes/markers shall be shown on the plat map or site plan recorded with the Auditor.

(c) Signs or Fencing Required as Part of Critical Area Mitigation. The Administrative Official shall require permanent signs or fencing where the Administrative Official determines that it is a necessary component of a mitigation plan. The intent is to provide clear and sufficient notice, identification and protection of critical areas on-site where damage to a critical area or buffer by humans or livestock is probable due to the proximity of the adjacent activity.

(d) Sign, Marker and Fence Maintenance. It is the responsibility of the landowner, or any subsequent landowner, to maintain the required PCA markers, signs or fences in working order throughout the duration of the development project or land use activity. "Maintenance" includes any necessary replacement. Removal of required signs, markers or fences without prior written approval of the Administrative Official shall be considered a violation of this Chapter.

(3) PCA Recording and Binding Agreements.

(a) All PCAs shall be recorded with the County Auditor in accordance with the procedures established under this Section. The applicant shall be responsible for all fees and other costs associated with recording of PCAs.

(b) Binding Agreements. For each project or activity that requires recording of PCAs, the following information shall be recorded with the Auditor, using forms provided by Planning and Development Services, as part of a binding agreement between the landowner and the County which shall run with the land and be readily available to the public upon request:

(i) Binding agreement signed by the landowner and the Administrative Official which stipulates any special conditions of approval, protective covenants, binding conditions, or other requirements such as use restrictions, required mitigation, and/or landowner maintenance or monitoring requirements established at the time of approval;

(ii) Reference to the County file containing the complete record of information pertaining to approval of the project or activity.

(4) PCAs on Pre-Existing Lots.

(a) For development proposals and other land use activities on pre-existing lots, not part of a proposed land division, planned unit development (PUD) or other form of multiple lot development, PCAs shall be identified on a scaled site plan showing the location of the PCA, structures (existing and proposed) and their distances from the PCA and lot lines to show relative location within the subject parcel(s). All PCAs shall include the necessary labeling to show calculated area (in square feet or acreage), and type or category of critical area designated. The site plan may be prepared by the applicant and all distances and locations of structures may be measured from the established PCA boundary to within plus-or-minus 5 feet.

(b) Ingress and Egress. Owners of PCAs shall grant ingress and egress by the Administrative Official for monitoring and evaluation of compliance with established conditions of approval, binding conditions or any required mitigation.

(5) PCA Designations for New Land Divisions.

(a) For land divisions and PUDs where critical areas have been identified through site assessments, all PCAs shall be placed into separate tracts or easements, whose uses shall be regulated by the provisions of this Chapter. Area within a PCA can be included in total acreage for development purposes and may be used in lot area or density calculations. PCAs may be owned and maintained by the owner of the lot of which they are a part or transferred to the County, homeowners association or land trust. See SCC 14.24.170 regarding incentives that may be available for lands designated as PCAs.

(b) If the development project is a CaRD application and is within a natural resource land, the remainder parcel shall be put into Os-PA or Os-NRL and shall have all of the constraints that are set forth in this Chapter.

(i) If the development project is a short subdivision conducted pursuant to SCC 14.16.860 (Agricultural land preservation) which segregates an existing single-family residence on a substandard lot while preserving the remainder of the parcel under a County-approved agricultural preservation agreement, said short subdivision shall not include additional development as defined under SCC 14.04.020 and subsequent development on the segregated home site and/or remainder parcel shall require standard review pursuant to this Chapter.

(c) Recording. PCA designations shall be recorded with the Auditor as part of the plat approval process. The Auditor file number referencing the agreement shall be on the face of the plat and its provisions shall run with the land.

(d) PCA Plat Map Descriptions. The location of PCAs shall be clearly identified on preliminary and final plat maps. PCAs shall be labeled using the letters A through Z, or another labeling system approved by the Administrative Official. If a survey was not used to map the critical area, a note on the final plat map shall be recorded stating that a legal survey was not performed to delineate the critical area and that the surveyor is not incurring liability for the exact boundaries of the critical area on the plat map. All PCAs shall include the necessary labeling to show calculated area (in square feet or acreage), and type and/or category of critical areas within each lot. This information shall be noted on the face of the approved plat.

(e) PCA Maintenance. The PCA is to be left undisturbed in its natural state. No clearing, grading, filling, logging, or removal of woody material; building; construction or road construction of any kind; planting of non-native vegetation or occupation by livestock is allowed within the PCA areas except as specifically permitted by Skagit County on a case-by-case basis.

(f) Ingress, Egress and Use. Owners of PCAs shall grant ingress and egress by the Administrative Official for monitoring and evaluation of compliance with established conditions of approval, binding conditions or any required mitigation. (Ord. O20090010 Atch. 1 (part); Ord. O20080014 (part))

#### **14.24.100 Critical areas determination and conditions of approval.**

Based on the critical areas site assessment and other available critical areas information, the Administrative Official shall make a determination on the proposed activity. A determination to approve a proposal shall include designation of protected critical areas (PCAs) pursuant to SCC 14.24.090 and stipulation of binding conditions and required mitigation, monitoring, maintenance or other conditions of approval pursuant to this Chapter.

(1) If the Administrative Official determines that there are no conditions under which the proposed activity could be approved, then the Administrative Official shall deny the proposal.

(2) Formal determinations made by the Administrative Official shall include the basis and rationale for the determination, as well as detailed specification of related conditions of approval, land use prohibitions, and required landowner mitigation, management, monitoring and/or maintenance.

(3) Complete Record. A complete record of all formal determinations by the Administrative Official, along with related critical areas checklists, site assessments, binding agreements, conditions of approval, land use prohibitions and required mitigation shall be maintained by the County and made available to the public upon request, pursuant to Chapter 40.14 RCW.

- (4) Option to Apply for a Variance. If, as a result of the critical areas site assessment and determination, the applicant believes that he or she is eligible for a variance from one or more of the dimensional requirements of this Chapter, then the applicant may request a variance as described in SCC 14.24.140.
- (5) Option to Apply for a Reasonable Use Exception. If, as a result of the critical areas site assessment and determination, the applicant believes that the requirements of this Chapter, including any request for a variance from the requirements of this Chapter, still leave the applicant with no reasonable and economically viable use of his or her property, then the applicant may apply for a reasonable use exception pursuant to SCC 14.24.150.
- (6) Reopening of Review Process.
  - (a) If at any time prior to completion of the public input process on the associated permit or approval, the Administrative Official receives new evidence that a critical area or a critical area buffer may be present within 200 feet of the project area or within a distance otherwise specified in this Chapter, then the Administrative Official shall reopen the critical areas review process pursuant to this Chapter and shall require whatever level of critical areas review and mitigation as is required by this Chapter.
  - (b) Once the public input process on the associated permit or approval is completed and the record is closed, then the Administrative Official's determination regarding critical areas pursuant to this Chapter shall be final, unless appealed as described in SCC 14.24.730; provided, however, that the Administrative Official shall not be prevented from reopening the critical areas review process if County staff relied on misinformation provided by the applicant in the application or checklist. Prior to reopening a critical areas review under this Subsection, the Administrative Official shall make a site visit. No critical areas review shall be reopened under this Section unless the Administrative Official determines, after the site visit, that the applicant provided misinformation.
  - (c) If a critical areas review is reopened under this Subsection after a permit or approval is granted, the burden of proof on whether the applicant submitted misinformation at the time of the submittal of the checklist shall be on the Administrative Official. The fact that the applicant no longer owns the subject property at the time the Administrative Official discovers the misinformation shall not inhibit reopening critical areas review. (Ord. O20080014 (part))

**14.24.110 County regulation of forest practices for the protection of critical areas.**

Forest practices governed under Chapter 76.09 RCW are subject to the provisions of this Section as follows:

- (1) All Class IV-General forest practices that propose conversion to a use other than commercial timber production shall be subject to all of the provisions of this Section.
- (2) Any request for County approval of a Conversion Option Harvest Plan (COHP) shall be subject to all of the provisions of this Section.
- (3) The County shall coordinate the review of forest practice applications within the urban growth areas (UGAs) of incorporated cities and towns through interlocal agreements; provided, that the County shall continue to condition forest practices within all UGAs to the full extent of this Chapter until such time as its jurisdictional responsibility is amended by interlocal agreements.
- (4) The following shall be subject to a 6-year moratorium on all future activities which require a permit or land use approval from the County:
  - (a) Forest practices of any class governed by Chapter 76.09 RCW that:
    - (i) Do not fall under Subsection (1), (2) or (3) of this Section; and
    - (ii) Where no significant threat to the public safety or welfare is indicated; and
    - (iii) Where no indications exist of future conversion to uses other than forest practices; or
  - (b) Where an undeclared conversion of forest land to a specified use has occurred under a non-conversion forest practice application (FPA) without an approved COHP in good standing; or

(c) When harvesting takes place without an FPA. In this case, the moratorium shall begin on the date the harvest activity was discovered by the DNR or the County.

(5) **Waiver of the 6-Year Moratorium.** The applicant may apply to the County for a waiver of the 6-year moratorium. The 6-year moratorium may be waived for a lot of record where such activity complies with all applicable County ordinances. Such waiver may be issued by the Administrative Official as a Level I process where a finding can be made that granting the waiver meets the criteria noted below. Before acting on the request for waiver of the moratorium, the Administrative Official shall issue a notice of development application (NODA) consistent with the procedures under SCC Chapter 14.06, including a 15-day comment period, and review the project for consistency with SEPA under SCC Chapter 16.12; provided further, where the initial critical areas review and site visit concludes that no critical areas have been impacted, or do not exist, the Administrative Official may waive the NODA requirement and issue the waiver. The following shall provide the criteria for considering a waiver:

(a) A critical areas site assessment must be prepared where warranted by this Chapter following initial review and site visit of the use proposed for the property subject to the moratorium. The site assessment shall determine the level of impacts to County-regulated critical areas and associated buffers that have occurred due to logging and any associated conversion activity. The site assessment shall also include an estimated time needed for recovery of the critical area to a state comparable to what it was before the forest practice took place.

(b) If, based on the prepared site assessment and comments received, the Administrative Official determines that recovery of the critical area(s) and associated buffers can be achieved, then a mitigation plan shall be prepared and implemented consistent with this Chapter and the moratorium shall be lifted. If, however, critical areas and their buffers cannot be restored to a level of critical areas function comparable to what it was prior to the logging activity during the moratorium period, the request for a waiver of the moratorium shall be denied and the County shall not accept applications for development permits for the duration of the moratorium.

(6) In situations where a request for waiver has been denied based on the evidence provided in the site assessment and public comment, restoration to the extent feasible shall occur within the critical areas and their standard buffers (including reforestation), and no further land use approvals shall be issued for the duration of the moratorium. (Ord. O20110007 Attch. 1 (part); Ord. O20090010 Attch. 1 (part); Ord. O20080014 (part))

#### **14.24.120 Ongoing agriculture.**

(1) **Purpose and Intent.** The purpose of this Section is to address 2 mandates under the Growth Management Act (GMA): (a) to protect the existing functions and values of fish and wildlife habitat conservation areas (FWHCAs) in and adjacent to natural, modified natural, and artificial watercourses as defined in SCC 14.04.020 (collectively “watercourses”), and (b) to conserve and protect agricultural lands of long-term commercial significance, specifically those lands in ongoing agricultural activity as defined by SCC 14.04.020 that are located adjacent to these watercourses.

(a) For purposes of this Section, “existing functions and values” means the following:

(i) Water quality standards identified in Chapter 173-201A WAC, including the provisions that account for natural or baseline conditions.

(ii) The existing presence or absence of large woody debris within the watercourse.

(iii) The existing riparian buffer characteristics and width, including but not limited to the existing amount of shade provided by the existing riparian buffer.

(iv) The existing channel morphology.

(b) Because many of the areas that are the subject of this Section are located in the Skagit and Samish River deltas or floodplains, where substantial diking and drainage infrastructure have been constructed and where various diking and drainage districts have lawful obligations to maintain agricultural and other drainage

functions and infrastructure as established in RCW Titles 85 and 86, this Section also must accommodate those ongoing diking, drainage, and flood control functions.

(c) It is the goal of Skagit County to administer the provisions of this Section consistent with local, State, and Federal programs, statutes and regulations to protect the health, welfare, and safety of the community, to accommodate continued operation and maintenance of the diking, drainage, and flood control infrastructure and to protect agriculture, natural resources, natural resource industries, and fish and wildlife habitat conservation areas in and adjacent to watercourses. This Section is intended, to the maximum extent possible, to rely on and coordinate with but not substitute for or duplicate other State and Federal programs, statutes, and regulations that address agricultural activities in a manner that protects water quality and fish habitat. This Section is intended to supplement those existing State and Federal programs, statutes, and regulations only in those areas where the County has determined existing programs do not fully address GMA requirements to protect FWHCAs in and adjacent to watercourses and to conserve agricultural lands of long-term commercial significance.

(d) Skagit County hereby elects to enroll the entirety of unincorporated Skagit County, and all its watersheds, in the Voluntary Stewardship Program established by Engrossed Substitute House Bill 1886 (2011). Skagit County intends the Voluntary Stewardship Program, in conjunction with the provisions of this Section and Chapter, to protect critical areas in areas of agricultural activity.

(2) Applicability. Except as may otherwise be required by ESHB 1933, Chapter 321, Laws of 2003, for agricultural lands located within the jurisdiction of the Shoreline Management Act, Chapter 90.58 RCW, this Section shall apply to the following:

(a) As defined in SCC 14.04.020, all ongoing agriculture (including operation and maintenance of agricultural drainage infrastructure) which is located within 200 feet from a watercourse, or any ongoing agriculture (including operations and maintenance of agricultural drainage infrastructure) that adversely impacts the existing functions and values of a watercourse, is subject to the requirements of this Section. Isolated, artificial watercourses that have no channelized surface hydraulic connection or no piped hydraulic connection between the artificial watercourse and any natural or modified natural watercourse or any salt water shall not be subject to the requirements of this Section. Drainage tile used to convey groundwater shall not be considered a piped hydraulic connection.

(b) The provisions of this Section shall not be interpreted to permit expansion of ongoing agriculture (including agricultural drainage infrastructure) into areas that did not meet the definition of ongoing agriculture on May 13, 1996, including lands that were fallow on that date but had been in agricultural production within 5 years prior to that date, unless such expansion can comply with all of the requirements for critical areas protection found in this Chapter, including but not limited to the requirement to adhere to the standard critical areas buffers and setbacks.

(c) In this Section, the term “best management practices (BMPs)” refers to one or all definitions of that term in SCC 14.04.020, depending on which definition is relevant within the context used.

(d) Agricultural operations that do not meet the definition of ongoing agriculture are required to comply with the other provisions of this Chapter.

(3) No Harm or Degradation Standard.

(a) All ongoing agricultural activities must be conducted so as not to cause harm or degradation to the existing functions and values of FWHCAs in and adjacent to watercourses (the “no harm or degradation” standard). For purposes of this Section, the phrase “no harm or degradation” means the following:

(i) Meeting the State water pollution control laws; and

(ii) Meeting the requirements of any total maximum daily load (TMDL) water quality improvement projects established by the Department of Ecology (ECY) pursuant to Chapter 90.48 RCW; and

- (iii) Meeting all applicable requirements of Chapter 77.55 RCW (Hydraulics Code) and Chapter 220-110 WAC (Hydraulics Code Rules); and
  - (iv) Meeting the specific watercourse protection measures for ongoing agriculture specified in Subsection (4) of this Section; and
  - (v) No evidence of significant degradation to the existing fish habitat characteristics of the watercourse from those characteristics identified in the baseline inventory described in Resolution No. R20040211 that can be directly attributed to the agricultural activities that are described in this Section.
- (b) The references to Chapters 77.55 and 90.48 RCW and Chapters 173-201A and 220-110 WAC contained in this Subsection shall not be interpreted to replace ECY and the Washington Department of Fish and Wildlife (WDFW) authority to implement and enforce these State programs with County responsibility to do so, but rather are intended to provide County input and a supplemental County involvement as needed to implement the County's GMA obligations under this Section.
- (c) Reserved.
- (d) An owner or operator is responsible only for those conditions caused by agricultural activities conducted by the owner or operator and is not responsible for conditions that do not meet the requirements of this Subsection resulting from the actions of others or from natural conditions not related to the agricultural operations. In those situations where the County is presented with data showing a violation of a State water quality standard at a particular location, but where the County cannot identify any condition or practice existing or occurring at a particular agricultural operation that is causing the violation, the County shall refer the information regarding the State water quality violation to ECY and shall follow other procedures described in SCC 14.44.085. Conditions resulting from unusual weather events (such as a storm in excess of 25-year, 24-hour storm), or other exceptional circumstances that are not the product of obvious neglect are not the responsibility of the owner or operator, but shall be subject to the requirements for emergency actions described in SCC 14.24.070(1).
- (4) Required Watercourse Protection Measures for Ongoing Agriculture. Unless the emergency provisions of SCC 14.24.070(1) apply, the following watercourse protection measures are required:
- (a) Livestock and Dairy Management. Livestock and dairy operations must not contribute any wastes or sediments into a natural or modified natural watercourse in violation of adopted State water pollution control laws.
    - (i) Livestock access to watercourses must be managed consistent with this Subsection. Access to a watercourse for livestock watering and/or stream crossings must be limited to only the amount of time necessary for watering and/or crossing a watercourse. Livestock watering facilities or access must be constructed consistent with applicable NRCS conservation practice standards, and must not be constructed to provide access to agricultural land that does not meet the definition of ongoing agriculture unless that agricultural land and the crossing can meet all requirements of Chapter 14.24 SCC.
    - (ii) Dairy operations must comply with the requirements of Chapter 90.64 RCW (Dairy Nutrient Management Act).
    - (iii) Livestock pasture must be managed so as to maintain vegetative cover sufficient to avoid contributing sediments to a watercourse in violation of State water pollution control laws.
    - (iv) Any existing or new livestock confinement or concentration of livestock areas that is located upgradient from a watercourse which results in bare ground (such as around a watering trough) must be constructed and maintained to prevent sediment and/or nutrient runoff contaminants from reaching a watercourse in violation of State water pollution control laws.
  - (b) Nutrient and Farm Chemical Management.

- (i) The owner or operator must not place manure in a watercourse or in a location where such wastes are likely to be carried into a watercourse by any means. Spreading of manure within 50 feet of any watercourse, and spreading of liquid manure on bare ground, is prohibited from October 31st to March 1st; unless otherwise permitted pursuant to:
    - (A) An approved and implemented dairy nutrient management plan (DNMP) as prescribed by Chapter 90.64 RCW; or
    - (B) A farm plan prepared or approved by the Conservation District.
  - (ii) Agricultural operators may not apply crop nutrients other than at agronomic rates recommended for that particular crop.
  - (iii) Farm chemicals may only be applied consistent with all requirements stated on the chemical container labels and all applicable Federal and State laws and regulations, such as Chapter 15.58 RCW (Pesticide Control Act), Chapter 17.21 RCW (Pesticide Application Act), and 7 USC 136 et seq. (Federal Insecticide, Fungicide, and Rodenticide Act).
- (c) Soil Erosion and Sediment Control Management.
- (i) Roads used for ongoing agricultural activities must be designed such that road surfaces, fill, and associated structures are constructed and maintained to avoid contributing sediment to watercourses.
  - (ii) Agricultural equipment operation must not cause watercourse bank sloughing or other failure due to operation too close to the top of the bank.
  - (iii) Watercourse construction and maintenance must meet the requirements for drainage operation and maintenance described under Subsection (4)(d) of this Section.
  - (iv) V-ditching must not be constructed to drain into a watercourse that contains salmonids, unless the topography of the field is such that the only alternative to drain the field by gravity is to drain the V-ditch into a watercourse that does contain salmonids. When draining a V-ditch into a watercourse that does contain salmonids, appropriate BMPs should be used to avoid contributing excess amounts of sediment to the watercourse. For the purpose of determining whether a watercourse contains salmonids, the County will use salmonid distribution based on the “limiting factors analysis” data compiled by the Washington State Conservation Commission.
- (d) Operation and Maintenance of Public and Private Agricultural Drainage Infrastructure. The following practices apply to any watercourse that is part of drainage infrastructure, except those practices performed pursuant to a fully-executed Drainage-Fish Initiative or Tidegate-Fish Initiative agreement:
- (i) Regularly scheduled agricultural drainage infrastructure maintenance that includes dredging or removal of accumulated sediments in any watercourse shall be conducted between June 15th and October 31st. If an approved hydraulics project permit provides for a different work window, those requirements control. If presence of fall or over-winter crops prevents regularly scheduled maintenance during this time period, then the maintenance may be conducted outside this work window; provided, that the person or entity proposing to conduct the maintenance outside the work window can demonstrate that the presence of crops prevents maintenance within the work window and provided the maintenance is conducted using best management practices to minimize sediment or other impacts to water quality.
    - (A) Owners or operators shall consult with districts conducting drainage maintenance to schedule their crop rotations for crops that may still be in the field after October 31st so that, to the maximum extent possible, such drainage maintenance can occur in a year when the fall crops are not being raised in the field adjacent to the drainage infrastructure scheduled for drainage maintenance.
  - (ii) Unless there is no feasible alternative, regularly scheduled maintenance that includes dredging or removal of accumulated sediments in any watercourse should be conducted at those times when there is no

or minimal water flow in the watercourse being maintained to minimize potential for distributing sediments to salmonid-bearing waters.

(iii) Excavation spoils must be placed so as not to cause bank failures and so that drainage from such spoils will not contribute sediment to the watercourse.

(iv) Mowing or cutting of vegetation located within a watercourse that is part of drainage infrastructure may be conducted at any time; provided, that the cutting is above the ground surface within the channel and in a manner that does not disturb the soil or sediments; and provided, that the cut vegetation does not block water flow. Watercourse bank vegetation shall be preserved or allowed to reestablish as soon as practicable after drainage construction and maintenance are completed to stabilize earthen ditch banks.

(v) Districts subject to this Section, operating pursuant to authority in RCW Title 85 or 86, which are conducting drainage activities shall complete and submit a drainage maintenance checklist to the County by June 1st of each year. The checklist shall describe the intent of the district to comply with the drainage maintenance requirements of Subsection (4)(d) of this Section. The districts may seek assistance from NRCS, SCD and/or the County in completing the checklist or addressing the requirements of this Subsection. The checklist shall be available from Skagit County Planning and Development Services, mailed to any entity conducting drainage activities, and shall be submitted to Planning and Development Services when completed. The districts may submit modifications to the information in the checklist, if circumstances affecting district maintenance change after the initial submittal.

(A) The County shall send a written notice to any district not submitting this completed checklist by June 1st of each year, stating that the County has not received the required checklist and that the district is not authorized to conduct drainage maintenance activity until the district has submitted the completed checklist evidencing intent to comply with this Subsection.

(B) Subsequent commencement of drainage maintenance work without submitting a completed checklist shall be subject to enforcement pursuant to Chapter 14.44 SCC.

(vi) Immediate measures necessary to drain fields inundated by an unanticipated flooding event or failure of the agricultural drainage infrastructure shall be subject to the requirements for emergency repair described in SCC 14.24.070(1).

(5) Recognition for Agricultural Owners and Operators Who Have Implemented Extra Watercourse Protection Measures. This Subsection intends to recognize the extra watercourse protection measures for ongoing agriculture taken by landowners or operators who have implemented an approved dairy nutrient management plan (DNMP) or resource management system plan (RMS plan) (including, but not limited to, CREP) from SCD or NRCS.

(a) Those portions of land upon which owners or operators have sought and implemented an approved DNMP or an RMS plan consistent with the conservation practices and management standards that meet the FOTG quality criteria for each natural resource (soil, water, animals, plants and air) are entitled to a presumption of compliance with the “no harm or degradation” standards described in Subsection (3) of this Section. The RMS plan or DNMP must include within the planning unit any watercourses located on the property, as well as all upland areas within the owner’s control that could potentially adversely impact the watercourse and/or associated fish habitat.

(b) Such presumption of compliance may be rebutted and enforcement commenced as described in SCC 14.44.085 if the County obtains credible evidence that the agricultural operation is not meeting the no harm or degradation standards of Subsection (3) of this Section. To be entitled to this presumption, the owner or operator shall provide the County with documented evidence of implementation of those elements of the approved plan that are relevant to the resource impact at issue at the time a Request for Investigation (RFI) is presented to the County under SCC 14.44.010.

(6) Enforcement. The Department is directed to enforce the requirements of this Subsection, including the mandatory watercourse protection measures, as described in SCC 14.44.085. (Ord. O20110013 Attch. A (part); Ord. O20080014 (part))

**14.24.130 Hazard tree removal.**

(1) In a critical area or critical area buffer, removal of hazardous, diseased or dead trees and vegetation by the landowner may be permitted when necessary to:

- (a) Control fire; or
- (b) Halt the spread of disease or damaging insects consistent with the State Forest Practice Act, Chapter 76.09 RCW; or
- (c) Avoid a hazard such as landslides; or
- (d) Avoid a threat to existing structures or aboveground utility lines.

(2) Before hazardous, diseased or dead trees and vegetation may be removed by the landowner pursuant to Subsection (1) of this Section:

- (a) Unless there is an emergency pursuant to SCC 14.24.070(1), the landowner shall obtain prior written approval from Planning and Development Services. This consent shall be processed promptly and may not be unreasonably withheld. If the Administrative Official fails to respond to a hazard tree removal request within 10 business days, the landowner's request shall be conclusively allowed; and
- (b) The removed tree or vegetation should be left within the critical areas or buffer unless the Administrative Official, or a qualified professional, warrants its removal to avoid spreading the disease or pests; and
- (c) Any removed tree or vegetation shall be replaced by the landowner with an appropriate native species in appropriate size. Replacement shall be performed consistent with accepted restoration standards for critical areas within 1 calendar year;
- (d) For this Section only, a "qualified professional" shall mean a certified arborist, certified forester or landscape architect. (Ord. O20080014 (part))

**14.24.140 Variances.**

(1) If the strict application of this Chapter is found to deprive the subject property of rights and privileges enjoyed by other properties in the vicinity, due to special circumstances applicable to the subject property, including size, shape, and topography, a critical areas variance may be authorized as provided in Chapter 14.10 SCC; provided however, that those surrounding properties that have been developed under regulations in effect prior to the effective date of the ordinance codified in this Chapter shall not be the sole basis for the granting of the variance.

- (a) Standard buffer widths may be reduced by more than 25% but not more than 50% through an administrative variance. The administrative variance shall be processed as a Level I application pursuant to SCC 14.06.110.
- (b) Standard buffer widths may be reduced by more than 50% through a Hearing Examiner variance. The Hearing Examiner variance shall be processed as a Level II application pursuant to SCC 14.06.120.

(2) The Approving Authority shall ensure the opportunity for public comment, including that from appropriate Federal, State, and Tribal natural resource agencies, to ensure the use of best available science before deciding on variance requests and shall develop and maintain a public record on each variance request which includes all findings, assessments and public comments. Such record shall be made available to the public before the variance decision is made.

(3) Variances to the setback and buffer requirements of this Chapter may only be issued by the Approving Authority following review of the requirements listed in Subsections (3)(a) through (h) of this Section. The Approving Authority shall make a finding for each of the requirements.

- (a) The issuance of a zoning variance by itself will not provide sufficient relief to avoid the need for a variance to the dimensional setback and other requirements for the critical areas regulated by this Chapter; and
  - (b) Preparation of a site assessment and mitigation plan by a qualified professional pursuant to the requirements of SCC 14.24.080 and all other applicable sections of this Chapter. The site assessment and mitigation plan shall be prepared utilizing best available science; and
  - (c) The conclusions of the site assessment must utilize best available science to support a modification of the dimensional requirements of this Chapter; and
  - (d) The site assessment and mitigation plan demonstrate that the proposed project allows for development of the subject parcel with the least impact on critical areas while providing a reasonable use of the property; and
  - (e) The reasons set forth in the application justify the granting of the variance, and the variance is the minimum variance that will make possible the reasonable use of the land, building or structure; and
  - (f) The granting of the variance will be consistent with the general purpose and intent of this Chapter, and will not create significant adverse impacts to the associated critical areas or otherwise be detrimental to the public welfare; provided, that if the proposal is within the special flood hazard area (SFHA), the applicant must demonstrate that the proposal is not likely to adversely affect species protected under the Endangered Species Act, or their habitat; and
  - (g) The inability of the applicant to meet the dimensional standards is not the result of actions by the current or previous owner in subdividing the property or adjusting a boundary line after the effective date of the ordinance codified in this Chapter; and
  - (h) The granting of the variance is justified to cure a special circumstance and not simply for the economic convenience of the applicant.
- (4) In granting any variance, the Approving Authority shall prescribe such conditions and safeguards as are necessary to secure adequate protection of critical areas from adverse impacts and to ensure that impacts to critical areas or their buffers are mitigated to the extent feasible utilizing best available science. The Approving Authority shall consider and incorporate, as appropriate, recommendations from Federal, State and Tribal resource agencies.
- (5) The Approving Authority shall maintain a record of all decisions made on requests for variances. Such record shall include the basis and rationale for any such decision as well as any comments provided by Federal, State or Tribal natural resource agencies. Such record shall be made available to the public upon request.
- (6) A variance shall expire if the use or activity for which it is granted is not commenced within three years of final approval by the Approving Authority. Knowledge of the expiration date is the responsibility of the applicant.
- (7) Appeals of the Approving Authority decisions on variance requests shall be made pursuant to the provisions of Chapter 14.06 SCC. (Ord. O20110008 (part); Ord. O20080014 (part))

**14.24.150 Reasonable use exception.**

- (1) If the application of this Chapter would result in denial of all reasonable and economically viable use of a property, and if such reasonable and economically viable use of the property cannot be obtained by consideration of a variance pursuant to SCC 14.24.140, then a landowner may seek a reasonable use exception from the standards of this Chapter. Reasonable use exceptions shall only apply to legal lots of record established prior to June 13, 1996. Reasonable use exceptions are intended as a last resort when no plan for mitigation and/or variance can meet the requirements of this Chapter and allow the applicant a reasonable and economically viable use of his or her property. The reasonable use exception shall follow the variance and public notification procedures of Chapters 14.06 and 14.10 SCC.
- (2) The Hearing Examiner shall only grant a reasonable use exception under all of the following conditions:

- (a) The application of this Chapter would deny all reasonable and economically viable use of the property so that there is no reasonable and economically viable use with a lesser impact on the critical area than that proposed; and
  - (b) The proposed development does not pose a threat to the public health and safety; and
  - (c) Any proposed modification to a critical area will be evaluated by the Hearing Examiner through consideration of a site assessment and mitigation plan prepared by a qualified professional pursuant to the requirements of this Chapter, and will be the minimum necessary to allow reasonable and economically viable use of the property. The site assessment and mitigation plan shall be prepared utilizing best available science; and
  - (d) The inability of the applicant to derive reasonable use of the property is not the result of actions by the current or previous owner in subdividing the property or adjusting a boundary line, thereby creating the undevelopable condition, after the effective date of the ordinance codified in this Chapter; and
  - (e) The applicant has requested and been denied a variance under the provisions of SCC 14.24.140; and
- (3) The Hearing Examiner may issue conditions of approval including modifications to the size and placement of structures and facilities to minimize impacts to critical areas and associated buffers. The Hearing Examiner may also specify mitigation requirements that ensure that all impacts are mitigated to the maximum extent feasible utilizing best available science; and
- (4) The Hearing Examiner shall provide opportunity for public comment before a decision on a request for a reasonable use exception is made, including comments from appropriate Federal, State and Tribal natural resource agencies. The Hearing Examiner shall maintain a record of all information, including public comments, which were used in making a decision on a request for a reasonable use exception. This record shall be made available to the public upon request.
- (5) A reasonable use shall expire if the use or activity for which it is granted is not commenced within three years of final approval by the Approving Authority. Knowledge of the expiration date is the responsibility of the applicant.
- (6) Decisions issued by the Hearing Examiner on requests for reasonable use exceptions may be appealed pursuant to the provisions of Chapter 14.06 SCC. (Ord. O20080014 (part))

**14.24.160 Public notice and records.**

- (1) Public notice for projects subject to the provisions of this Chapter shall be provided pursuant to Chapter 14.06 SCC (Permit Procedures) and SCC 14.24.350 (Flow-sensitive basins).
- (2) Records of all critical area assessments and related land use approvals and conditioning shall be maintained by the County and be made available to the public upon request. (Ord. O20080014 (part))

**14.24.170 Incentives.**

- (1) The following incentives are intended to minimize the burden to individual property owners from application of the provisions of this Chapter and assist the County in achieving the goals of this Chapter:
  - (a) **Open Space.** Any property owner on whose property a critical area or its associated buffer is located and who proposes to put the critical area and buffer in a separate open space tract may apply for a current use property tax assessment on that separate tract pursuant to Chapter 84.34 RCW. The County shall develop current use tax assessment programs for agricultural and small forest lands less than 20 acres and other open spaces.
  - (b) **Conservation Easement.** Any person who owns an identified critical area or its associated buffer may place a conservation easement over that portion of the property by naming the County or its qualified designee under RCW 64.04.130 as beneficiary of the conservation easement. This conservation easement can be used in lieu of the creation of a separate critical areas tract to qualify for open space tax assessment described in Subsection (1)(a) of this Section. The purpose of the easement shall be to preserve, protect, maintain, restore

and limit future use of the property affected. The terms of the conservation easement may include prohibitions or restrictions on access and shall be approved by the property owner and the County.

(c) **Density Credit.** On lands containing critical areas or their associated buffers, the County shall allow a transfer of density for residential uses from the portion of the property containing the critical areas or buffers to that portion of the property that does not contain critical areas or buffers; provided, that the resulting density on the portion of the property does not contain critical areas or their buffers; and

- (i) Does not create any adverse impacts to the critical area that cannot be adequately mitigated; and
- (ii) All other development regulations can be met on site.

(d) **Conservation Futures Fund.** The County has established a conservation futures property tax fund as authorized by RCW 84.34.230. Properties containing critical areas or their associated buffers may be considered for acquisition under a purchase of development rights with these funds. Acquisitions shall be done through the Farmland Legacy Program as recommended by the Conservation Futures Advisory Committee, under the provisions of Ordinance No. 16380 and Resolution No. 16766.

(2) For any tract placed into or encumbered with a PCA, the County shall use its best efforts to assist the property owner in obtaining open-space tax status on that portion of the property and/or in dedicating that property to a nonprofit land trust organization to eliminate or minimize property tax burdens.

(3) The County shall seek to educate the public regarding critical areas, the beneficial functions of critical areas and the requirements of this Chapter in an effort to encourage citizen understanding, compliance and stewardship.

(4) The County shall, where practical, provide incentives to landowners to restore critical areas or their buffers that have been adversely affected by previous land use activities. (Ord. O20080014 (part))

#### **14.24.200 Wetlands designations.**

(1) Wetlands, as defined in RCW 36.70A.030(21), are areas that are inundated or saturated by surface water or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas. Wetlands do not include those artificial wetlands intentionally created from nonwetland sites, including, but not limited to, irrigation and drainage ditches, grass-lined swales, canals, detention facilities, wastewater treatment facilities, farm ponds, and landscape amenities, or those wetlands created after July 1, 1990, that were unintentionally created as a result of the construction of a road, street, or highway. Wetlands may include those artificial wetlands intentionally created from nonwetland areas created to mitigate conversion of wetlands.

(2) **Designation.** Wetlands shall be identified and designated through a site visit and/or a site assessment in compliance with WAC 173-22-035. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

#### **14.24.210 Wetlands classification.**

Wetlands shall be rated according to the Washington State Wetland Rating System for Western Washington 2014 Update (Department of Ecology Publication No. 14-06-029). This document contains the definitions, methods and a rating form for determining the categorization of wetlands below:

(1) Category I wetlands are those wetlands of exceptional value in terms of protecting water quality, storing flood and stormwater, and/or providing habitat for wildlife.

(2) Category II wetlands do not meet the criteria for Category I rating but occur infrequently and have qualities that are difficult to replace if altered.

(3) Category III wetlands have important resource value.

(4) Category IV wetlands are of limited resource value. They typically have vegetation of similar age and class, lack special habitat features, and/or are isolated or disconnected from other aquatic systems or high quality upland habitats. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.220 Wetlands site assessment requirements.**

Any proposed high impact land use within 300 feet of wetland indicators, and any other proposed land use within 225 feet of wetland indicators, requires a wetlands site assessment. In addition to the requirements of SCC 14.24.080, the following shall be included in a wetlands site assessment:

- (1) A wetland delineation shall be performed as part of a site assessment. The delineation shall be performed by a qualified professional trained in conducting delineations in accordance with the methodology specified under SCC 14.24.200; and
- (2) Wetland category, including Cowardin and hydrogeomorphic (HGM) classification, in accordance with SCC 14.24.210; and
- (3) A site plan indicating wetland and buffer boundaries and the locations of all data points; and
- (4) Functions and values analysis which includes but is not limited to a discussion of water quality, fish and wildlife habitat hydrologic regime, flood and stormwater control, base flow and groundwater support, cultural and socioeconomic values; and
- (5) All data sheets and rating forms used to assess the wetland conditions on and off site. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.230 Wetland protection standards.**

- (1) Wetland Buffer Widths.

(a) Standard Wetland Buffers. Standard buffers are based on land use impact. The following standard buffers shall be required for regulated wetlands unless otherwise provided for in this Section:

Standard Buffers			
	Land Use Impact		
Wetland Rating	Low	Moderate	High
Category I	150 feet	225 feet	300 feet
Category II	150 feet	225 feet	300 feet
Category III	75 feet	110 feet	150 feet
Category IV	25 feet	40 feet	50 feet

(b) Optional Wetland Buffers. The applicant may choose to have the optional wetland buffers in Section 8C.2.3 (as updated in 2014) of Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, apply in place of the standard buffers in Subsection (1)(a) of this Section, provided a site assessment is completed by a qualified professional pursuant to SCC 14.24.080.

Wetland Rating	Habitat Score	Land Use Impact		
		Low	Moderate	High
Category I	Standard Buffers only			
Category II	8—9	150'	225'	300'
	5—7	75'	110'	150'
	<5	50'	75'	100'
Category III	8—9	150'	225'	300'

Wetland Rating	Habitat Score	Land Use Impact		
		Low	Moderate	High
	5—7	75'	110'	150'
	<5	40'	60'	80'
Category IV	Standard Buffers only			

(2) Wetland buffers shall be measured horizontally in a landward direction from the wetland edge, as delineated in the field, pursuant to the requirements of SCC 14.24.210. Where lands abutting a wetland display a continuous slope of 25% or greater, the buffer shall include such sloping areas. Where the horizontal distance of the sloping area is greater than the required standard buffer, the buffer should be extended to a point 25 feet beyond the top of the bank of the sloping area.

(3) Any wetland created, restored or enhanced as mitigation for approved wetland alterations shall also include the standard buffer required for the category of the created, restored, or enhanced wetland.

(4) Where a buffer has been previously established after June 13, 1996, through a County development review and is permanently recorded on title or placed within a separate tract or easement, the buffer shall be as previously established. Additional review may be requested by the applicant or required by the Administrative Official to determine whether or not conditions on site have changed resulting in the previously established buffer no longer being applicable.

(5) Where a legally established and constructed public roadway transects a wetland buffer, the Administrative Official may approve a modification of the standard buffer width to the edge of the roadway, provided:

- (a) The isolated part of the buffer does not provide additional protection of the wetland; and
- (b) The isolated part of the buffer provides insignificant biological, geological or hydrological buffer functions relating to the wetland; and
- (c) If the resulting buffer distance is less than 50% of the standard or optional buffer for the applicable wetland category, no further reduction shall be allowed.

(6) Category III and IV wetlands less than 4,000 square feet that have been identified through a site assessment may be exempted or partially exempted from the provisions of this Chapter and may be altered by filling or dredging as outlined below:

- (a) Category III and IV wetlands less than 1,000 square feet are exempt from County regulation where:
  - (i) The wetland is isolated; and
  - (ii) The wetland is not associated with a riparian corridor; and
  - (iii) The wetland is not part of a wetland mosaic, as described in the Washington State Wetland Rating System for Western Washington (Department of Ecology Publication No. 14-06-029); and
  - (iv) The wetland does not contain Department of Fish and Wildlife-designated priority species or habitat identified as essential for local populations of priority species.
- (b) Category III and IV wetlands between 1,000 and 4,000 square feet may be exempted from the mitigation sequencing requirement to first avoid impacts where:
  - (i) The wetland meets the criteria listed in Subsection (6)(a) of this Section; and
  - (ii) The project impacts are fully mitigated. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.240 Wetland performance-based buffer alternatives and mitigation standards.**

Buffer widths may be increased, decreased or averaged in accordance with the following provisions. All mitigation proposed shall be consistent with State and Federal wetland regulations.

(1) **Buffer Width Increasing.** The Administrative Official may require the standard or optional buffer width to be increased by the distance necessary to protect wetland functions and provide connectivity to other wetland and habitat areas for one of the following:

- (a) To maintain viable populations of existing species listed by the Federal or State government as endangered, threatened or sensitive; or
- (b) To protect wetlands against severe erosion that standard erosion control measures will not effectively address; or
- (c) When a Category I or II wetland is located within 300 feet of:
  - (i) Another Category I, II or III wetland; or
  - (ii) A fish and wildlife HCA; or
  - (iii) A Type S or F stream; or
  - (iv) A high impact land use that is likely to have additional impacts.

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect wetland and habitat functions. If the wetland contains variations in sensitivity, increasing the buffer widths will only be done where necessary to preserve the structure, function and value of the wetland.

(2) **Buffer Width Averaging.** Buffer averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. Averaging of required buffer widths will be allowed only if the applicant demonstrates that all of the following criteria are met:

- (a) Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available; and
- (b) Averaging width will not adversely impact the wetland functions and values; and
- (c) The total area contained within the wetland buffer after averaging is no less than that contained within the standard buffer prior to averaging; and
- (d) The buffer width shall not be reduced below 75% of the standard buffer width.

(3) **Buffer Width Decreasing.** Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SCC 14.24.080. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a five-year monitoring and maintenance plan.

- (a) High impact land use projects may apply moderate intensity buffers if measures to minimize impacts to wetlands from high impact land uses are implemented. Some of the measures that may be used can be found in Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Appendix 8C (as updated in 2014).

(4) Any person who alters or proposes to alter regulated wetlands shall reestablish, create, rehabilitate and/or enhance areas of wetland in order to compensate for wetland losses at the ratios described in mitigation ratios for projects in Western Washington in Table 8C-11 (as updated in 2014) in Department of Ecology Publication No. 05-06-008, Wetlands in Washington State, Volume 2, Section 8C.2.3.

- (5) **Buffer Width Variance.** Standard and optional buffer widths may be reduced by more than 25% through a variance pursuant to SCC 14.24.140.
- (6) **Allowed Uses in Wetlands or Wetland Buffers.** The following activities may be permitted within wetlands or their buffers but shall comply with SCC 14.24.080 and 14.24.220:
- (a) **Roads, Bridges and Utilities.** Road, bridge and utility construction may be permitted across Category I wetlands and/or their buffers only with a variance in accordance with SCC 14.24.140, and across Category II, III or IV wetlands and/or their buffers under the following conditions:
    - (i) It is demonstrated to the Administrative Official that there are no alternative routes that can be reasonably used to achieve the proposed development; and
    - (ii) The activity will have minimum adverse impact to the wetland area; and
    - (iii) The activity will not significantly degrade surface or groundwater; and
    - (iv) The intrusion into the wetland area and its buffers is fully mitigated.
  - (b) **Low impact uses and activities** which are consistent with the purpose and function of the buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the wetland involved; provided, that such activity shall not result in a decrease in wetland functions and values and shall not prevent or inhibit the buffer's recovery to at least pre-altered condition or function. Examples of uses and activities which may be permitted in appropriate cases, as long as the activity does not retard the overall recovery of the buffer, include removal of noxious vegetation, pedestrian trails and viewing platforms less than 200 square feet which may be covered but not enclosed.
  - (c) **Stormwater discharges to wetlands** shall be controlled and treated in accordance with the Stormwater Management Manual. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.250 Wetland alternative compensation projects.**

- (1) **Off-Site Compensation.** On-site compensation is generally preferred over off-site compensation. Off-site compensation allows replacement of wetlands away from the site on which the wetland has been impacted by a regulated activity. The following conditions apply to off-site compensation:
- (a) Off-site compensation shall occur within the same drainage basin of the same watershed where the wetland loss occurs; provided, that Category IV wetlands may be replaced outside of the watershed if there is no reasonable alternative. In such instances, the stormwater storage function provided by Category IV wetlands must be provided for within the design of the development project.
  - (b) Off-site compensation can be allowed only under 1 or more of the following circumstances:
    - (i) On-site compensation is not feasible due to hydrology, soils, or other physical factors;
    - (ii) On-site compensation is not practical due to probable adverse impacts from surrounding land uses or would conflict with a Federal, State or local public safety directive;
    - (iii) Potential functions and values at the site of the proposed restoration are greater than the lost wetland functions and values;
    - (iv) When the wetland to be altered is of a limited function and value and is degraded, compensation shall be of the wetland community types needed most in the location of compensation and those most likely to succeed with the highest functions and values possible.
- (2) **Out-of-kind compensation** can be allowed when out-of-kind replacement will best meet the provisions of Subsection (3)(a) of this Section and the mitigation sequence outlined in SCC 14.24.080.

- (3) Selecting Compensation Sites. Except in the case of cooperative compensation projects in selecting compensation sites, applicants shall pursue locations in the following order of preference:
- (a) Filled, drained, or cleared sites which were formerly wetlands and where appropriate hydrology exists;
  - (b) Upland sites, adjacent to wetlands, if the upland is significantly disturbed and does not contain a mature forested or shrub community of native species, and where the appropriate natural hydrology exists.
- (4) Innovative Wetland Mitigation Projects. The Administrative Official may encourage, facilitate and approve innovative wetland mitigation projects. Advance compensation or mitigation banking are examples of innovative compensation projects allowed under the provisions of this Section wherein 1 or more applicants, or an organization with demonstrated capability, may undertake a compensation project together if it is demonstrated that all of the following circumstances exist:
- (a) Creation of 1 or several larger wetlands may be preferable to many small wetlands; and
  - (b) The group demonstrates the organizational and fiscal capability to act cooperatively; and
  - (c) The group demonstrates that long-term management of the compensation area will be provided; and
  - (d) There is a clear potential for success of the proposed compensation at the identified compensation site; and
  - (e) Wetland mitigation banking programs consistent with the provisions outlined in the Department of Ecology's publications No. 06-06-011A and No. 06-06-011B (Wetland Mitigation in Washington State, Part 1 and Part 2), Chapter 90.84 RCW and Chapter 173-700 WAC will be considered as a method of compensation for unavoidable, adverse wetland impacts associated with future development. (Ord. O20080014 (part))

**14.24.300 Aquifer recharge areas intent.**

- (1) This Section establishes areas determined to be critical in maintaining both groundwater quantity and quality. This Section specifies regulatory requirements for development within these areas and provides a methodology by which Skagit County will determine the level of review and any mitigation measures required. The intent of this Section is to:
- (a) Define minimum regulatory requirements to protect groundwater quality and quantity for existing and future use; and
  - (b) Identify practices, alternatives, and mitigation measures that can minimize the adverse impacts of proposed projects; and
  - (c) Ensure adequate design, construction, management, and operations to protect groundwater quality and quantity.
- (2) Existing and future beneficial uses of groundwater shall be maintained and protected. Degradation of groundwater quality that would interfere with or become injurious to beneficial uses shall be avoided or minimized.
- (3) Wherever groundwater is 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.
- (4) It is also the intent of this regulation to:

- (a) Comply with and implement the requirements of Chapter 90.48 RCW, Chapters 173-200, 173-201A, 173-160, 246-290 and 246-291 WAC, Chapter 12.48 SCC; and
- (b) Carry out powers in manners which are consistent with Chapter 90.54 RCW and Chapters 173-503 and 173-505 WAC, as amended; and
- (c) Comply with the Washington State Department of Health's wellhead protection guidance. (Ord. O20080014 (part))

**14.24.310 Aquifer recharge areas designations.**

There are 2 categories of aquifer recharge areas. These categories are designated to assist the Administrative Official in determining the level of assessment necessary to evaluate 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 hydrogeological susceptibility and vulnerability. All designated areas are subject to change as data and information are updated or become available.

(1) Categories.

- (a) Category I areas are those so designated because of the need for protection due to a pre-existing land use, or because they are identified by the County, State or Federal government as areas in need of aquifer protection where a proposed land use may pose a potential risk which increases aquifer vulnerability. Category I areas are shown on the aquifer recharge area map. Category I areas include:
  - (i) Areas served by groundwater which have been designated as a "sole source aquifer area" under the Federal Safe Drinking Water Act; and
  - (ii) Areas identified by the County as potential or existing sea water intrusion areas; and
  - (iii) Areas designated as "wellhead protection areas" pursuant to WAC Chapter 246-290 and the groundwater contribution area, or otherwise recognized by the Health Officer or Administrative Official as needing wellhead protection. Wellhead protection areas shall, for the purpose of this regulation, include the identified recharge areas associated with:
    - (A) The 10-year groundwater time of travel for all Group A public water systems; or
    - (B) The 1-year groundwater time of travel for all Group B public water supply wells.
  - (iv) Areas within 1/2 mile of a surface water source limited (SWSL) stream as designated in SCC 14.24.340(3)(c).
- (b) Areas throughout the County not identified as Category I areas are designated as Category II areas.
- (c) When any portion of the proposed project area is located partly within a Category I area, the proposed project shall be subject to the level of scrutiny provided for a Category I area.

(2) In order to protect aquatic resources, each watershed drainage area identified in SCC 14.24.350 is hereby designated as a "flow-sensitive basin." Flow-sensitive basins may include areas that also are designated Category I or Category II areas. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.320 Aquifer recharge areas prohibited activities.**

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

- (1) Landfills, including, but not limited to, hazardous or dangerous waste disposal facilities as defined in Chapter 173-303 WAC, municipal solid waste landfills as defined in Chapter 173-351 WAC, and limited purpose landfills as defined in Chapter 173-350 WAC.

- (2) Underground injection wells. Class I, III, and IV wells and subclasses 5F01, 5D03, 5F04, 5W09, 5W10, 5W11, 5W31, 5X13, 5X14, 5X15, 5W20, 5X28, and 5N24 of Class V wells, such as:
- (a) Agricultural drainage wells;
  - (b) Untreated sewage waste disposal wells;
  - (c) Cesspools;
  - (d) Industrial process water and disposal wells; and
  - (e) Radioactive waste disposal.
- (3) Wood treatment facilities that allow any portion of the treatment process to occur over permeable surfaces (both natural and manmade).
- (4) Facilities that store, process, or dispose of chemicals containing perchloroethylene (PCE) or methyl tertiary butyl ether (MTBE).
- (5) Facilities that store, process, or dispose of radioactive substances.
- (6) Other activities that the Administrative Official or Health Officer determines would significantly degrade groundwater quality or reduce the recharge to aquifers currently or potentially used as a potable water source or that may serve as a significant source of base flow to a flow-sensitive basin stream. The determination must be made based on credible scientific information. (Ord. O20080014 (part))

**14.24.330 Aquifer recharge areas site assessment requirements.**

- (1) Except as provided in Subsection (4) of this Section, the level of study for a site assessment which will be required of the applicant by the Administrative Official for a given development will be based on an initial project review by Skagit County Planning and Development Services that may also include staff from the Health Department and a County staff hydrogeologist. The standard site assessment requirements are provided in Subsection (2) of this Section. The reporting requirements for a particular project can be reduced, at the discretion of the Administrative Official or Health Officer, if it is determined that the preparation of a site assessment is not likely to provide additional information that will aid in the assessment of likely impacts to groundwater quality or quantity.
- (2) Site Assessment Requirements. Unless the scope of the site assessment has been reduced by the Administrative Official or the Health Officer, the site assessment shall satisfy the requirements of SCC 14.24.080, and shall include:
- (a) A site plan acceptable to the Administrative Official or Health Officer, which indicates the approximate location of known or geologically representative wells (abandoned and active), springs, and surface watercourses within 1,000 feet of the project property.
  - (b) A description of the site-specific hydrogeological characteristics regarding potential impact(s) to the quantity or quality of underlying aquifer(s). At a minimum this will include a description of the lithology, depth and static water level of known underlying aquifer(s), and depiction of groundwater flow direction and patterns on the appropriate map; and
  - (c) Identification of the initial receptors of potential adverse impacts located hydraulically down-gradient and within 1,000 feet of the project or as otherwise directed by the Administrative Official or Health Officer.
- (3) Additional Site Assessment Elements. After the initial project review, 1 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 hydrogeological conditions, and/or the perceived potential to adversely impact hydraulically downgradient receptors. One or more of these additional site assessment 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 downgradient receptors. Additional site assessment elements include:

- (a) Lithologic characteristics and stratigraphic relationships of the affected aquifer(s) and overlying geologic units and soil types including thickness, horizontal and vertical extent, permeability, and infiltration rates of surface soils.
  - (b) Delineation of identified structural features such as faults, fractures, and fissures.
  - (c) Aquifer characteristics including determination of recharge and discharge areas, transmissivity, storage coefficient, hydraulic conductivity, porosity, and estimate of groundwater flow direction, velocity and patterns for the affected aquifer(s).
  - (d) Estimate of precipitation and evapotranspiration rates for the project area.
  - (e) Preparation of appropriate hydrogeological cross sections depicting underlying lithology and stratigraphy, aquifer(s), and potential or probable contaminant pathways from a chemical release.
  - (f) 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) and through the aquifer(s), and how the contaminant(s) may be attenuated within the unsaturated zone and the aquifer(s) with consideration to advection, dispersion, and diffusion of contaminants in the groundwater.
  - (g) Delineation of areas potentially affected by contaminant migration on the ground surface and/or through potentially affected aquifer(s).
  - (h) Determination of background or existing groundwater quality underlying the project area.
  - (i) Development of a groundwater monitoring program to measure potential impacts of the development to underlying aquifer(s).
  - (j) 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).
  - (k) Determination of the degree of continuity between groundwater and nearby surface water including potential impacts to flows in surface water source limited (SWSL) streams and flow-sensitive basins from proposed groundwater withdrawals, and potential impacts to surface water quality from site runoff or contaminated groundwater discharge.
  - (l) Assessment of the potential for pumping-induced seawater intrusion.
  - (m) Nitrate Loading Assessment. For projects that have the potential to adversely impact groundwater quality by nitrate loading, the applicant shall test existing wells and/or required test wells for nitrate as nitrogen and calculate the current and projected future groundwater nitrate concentrations at full project build-out, at an appropriate point of compliance, as determined by project characteristics, and in a methodology approved by the County. If the calculated nitrate loading in the intended water supply equals or exceeds 5 milligrams per liter nitrate as nitrogen, the applicant shall develop a mitigation plan with the point of compliance determined based on project characteristics.
- (4) Exemptions. The following activities are exempted from the provisions of this Section:
- (a) Activities that legally existed on or before June 13, 1996. Expansions or changes in use shall comply with the applicable provisions of this Section.
  - (b) Single-family residential building permits, including accessory building permits and accessory dwelling unit (ADU) building permits, which are outside Category I areas.
  - (c) Residential short plats outside Category I areas where each lot is 2.5 acres or greater.

- (d) Single-family residential building permits where a site assessment was required to be completed for the land division. To meet the conditions of this exemption, the applicant must comply with the recorded plat notes and the applicable mitigation measures contained in the site assessment.
- (e) Activities allowed without standard critical areas review pursuant to SCC 14.24.070. (Ord. O20080014 (part))

**14.24.340 Aquifer recharge areas impact mitigation.**

The Administrative Official and Health Officer shall review development proposals to assess aquifer(s) vulnerability and establish needed mitigation measures. Where determined to be necessary through the site assessment process, or otherwise required under SCC 14.24.310(1)(a)(iii), development approvals shall include conditions designed to prevent significant degradation of water quality or reduction in recharge to underlying aquifer(s). Mitigation for groundwater withdrawals is presented in SCC 14.24.360. The project shall not cause exceedance of the water quality standards specified in WAC Chapter 173-200 or otherwise violate the anti-degradation requirements of WAC Chapter 173-200.

(1) Mitigation Plan Elements. For proposals requiring aquifer recharge area impact mitigations, in addition to adhering to any of the required mitigation measures identified above, the applicant shall develop for approval by the Administrative Official and the Health Officer a mitigation plan for the proposed development. All mitigation conditions applied to permits shall be based on all known, available, and reasonable methods of prevention, control, and treatment. Compliance with the mitigation plan shall be enforceable by the Administrative Official or Health Officer. The applicant may amend the plan with the approval of the Administrative Official and Health Officer. The Administrative Official and Health Officer may, based on performance criteria and monitoring results, require additional amendments to the plan. The mitigation plan shall contain the project's permit conditions and, as applicable:

- (a) A description of the mitigation measures to be taken, how they will be implemented, and performance criteria.
- (b) An environmental monitoring plan describing the monitoring program, maintenance, and reporting requirements.
- (c) A contingency plan describing corrective actions to be taken if monitoring results indicate that mitigation measures are not effectively protecting groundwater resources and human health. The Health Officer or the Administrative Official shall have the authority to impose additional required corrective actions where such measures are necessary to protect groundwater resources or human health. Where appropriate contingencies are not feasible and result in an activity posing unacceptable risk to the groundwater resources or human health, the Administrative Official or Health Officer shall deny the proposal.
- (d) Multiple-stage (or phased) development must consider the total build-out of the project in terms of critical aquifer recharge areas protection to allow for an assessment of the cumulative impacts of the entire development.
- (e) Conditions that would precipitate ceasing the project operation altogether.
- (f) Wellhead Protection Mitigation. Where a wellhead protection plan addressing the project area exists, the Administrative Official or Health Officer shall use the recommendations contained in the wellhead protection plan as a basis for formulating required mitigation measures. In the absence of such a mitigation plan, the Administrative Official or the Health Officer shall contact the owner of the public water system impacted by the proposed project and jointly develop mitigation measures, a summary of which shall be signed by the applicant and recorded with the applicant's property title.
- (g) Seawater Intrusion. Mitigation must be consistent with SCC 14.24.380, Seawater intrusion areas.
- (h) "Sole Source Aquifer" Mitigation. See SCC 14.18.310(2).
- (i) Nitrate Loading Mitigation.

- (i) **General Requirements.** If a calculated nitrate loading concentration for a project at the designated point of compliance per SCC 14.24.330(3)(m) is equal to or greater than 5 milligrams per liter nitrate as nitrogen, then the applicant shall be required to place a notification on the documents of title for the property affected and a monitoring plan shall be developed to monitor the nitrate level and include a contingency plan to be implemented if the nitrate level exceeds 10 milligrams per liter nitrate as nitrogen.
  - (ii) **Land Divisions.** If the calculated nitrate loading concentration for a land division at the designated point of compliance per SCC 14.24.330(3)(m) is equal to or greater than 5 milligrams per liter nitrate as nitrogen, then the applicant shall:
    - (A) Develop a mitigation plan to minimize the nitrate loading rate; and
    - (B) Develop a contingency plan to be implemented if the nitrate concentration exceeds 10 milligrams per liter nitrate as nitrogen; and
    - (C) Place notification on the plat stating that mitigation and contingency plans exist.
  - (iii) Mitigation of nitrate in groundwater from on-site septic systems may include decreasing the density of septic system drainfields.
- (2) **Recording of Mitigation Plan Summaries.**
  - (a) **General Requirements.** The Administrative Official or Health Officer may require that the applicant record a County-approved summary of the mitigation plan on the property title. A copy of the recorded summary shall be provided to the Administrative Official. If a property owner can demonstrate, to the satisfaction of the Administrative Official or Health Officer, that mitigation measures are no longer necessary, the Administrative Official or Health Officer shall approve the addition of language on the title for the property nullifying the mitigation requirements.
  - (b) **Land Divisions.** The Administrative Official shall require the applicant for a land division to record the mitigation plan as part of the plat notes. If the mitigation plan is not recorded as or referenced by a plat note, the applicant shall record the mitigation plan on the affected property title(s).
- (3) **Surface Water Source Limited (SWSL) Stream Mitigation.**
  - (a) If a project, excluding additions to a single-family dwelling unit that rely on an existing domestic groundwater system, is located within 1/2 mile of any of the streams identified in Subsection (3)(c) of this Section as SWSL streams the following mitigation measures shall be required, as applicable:
    - (i) **Public Water.** If an existing public water system, the source for which is located outside of the watershed containing the project, is timely and reasonably available to a project property within a SWSL watershed, and where the water provider is willing and able to provide safe and reliable potable water service, then the project shall be required to connect to the public water supply as a condition of project approval.
    - (ii) **Interim Groundwater Withdrawals.** If public water is not timely and reasonably available, as specified in Subsection (3)(a)(i) of this Section, the applicant may utilize groundwater withdrawn from the SWSL watershed on an interim basis, providing that the property shall be subject to mandatory participation in a local utility district (LUD) or special improvement district that will provide potable water service to the property if and when that occurs. The property owner shall be required to sign a written agreement with the County agreeing not to protest the LUD or special improvement district, and have those conditions recorded on the property title before a County permit or land division is approved. The property owner shall also agree through the above written agreement to connect all water fixtures to this public water system as soon as it is timely and reasonably available, and shall decommission any well(s) utilized for interim groundwater withdrawals in accordance with applicable State and County rules and regulations expeditiously following connection to the public system.

(iii) Lawn Watering. Lawn water restrictions or other water use conservation measures shall be required for properties included in land divisions approved after the date of adoption of the ordinance codified in this Chapter. Lawn watering restrictions for interim groundwater withdrawals shall not apply under the following conditions:

(A) The proposed development connects to an existing public water supply as described in Subsection (3)(a)(i) of this Section; or

(B) The proposed development is drawing water from an aquifer that meets the demonstration standard as specified in Subsection (3)(d) of this Section.

(iv) Public Water Lines. The County should encourage extension of new public water lines to serve existing legal lots of record in SWSL watersheds through establishment of a utility improvement district or other shared funding mechanism provided any such extension outside of an urban growth area is consistent with the County's Comprehensive Plan.

(v) Comprehensive Plan. Where economically feasible, the County shall consider as part of its Comprehensive Plan limitations on the uses and densities within designated SWSL stream corridors to limit new individual wells as necessary to protect tributary base flows.

(b) If a project is located within 1/2 mile of any of the streams identified in Subsection (3)(c) of this Section as SWSL then the total impervious surface of the proposed project shall be limited to 5% of the total lot area, unless the proposed development provides mitigation that will collect runoff from the proposed development, treat that runoff, if necessary to protect groundwater quality, and discharge that collected runoff into a groundwater infiltration system on site. The impervious surface limitation may be waived under the following conditions:

(i) A project is connected to a public water system that has a source of water located outside of the watershed and if the project uses an approved on-site sewage disposal system and it is determined that the on-site sewage disposal system is providing acceptable compensating recharge to the aquifer; or

(ii) The project is located in an area that the County Engineer determines is not suitable for stormwater infiltration; or

(iii) The limitation is inconsistent with applicable stormwater regulations.

(c) For the purposes of implementing this Chapter, the following streams are designated as surface water source limited streams:

(i) Carpenter Creek;

(ii) Coal Creek;

(iii) Diobsud Creek;

(iv) Friday Creek;

(v) Grandy Creek;

(vi) Jones Creek;

(vii) Lake Erie;

(viii) Nookachamps Creek;

(ix) Samish River;

(x) Whitehall Creek.

(d) Exceptions. Projects are exempt from the mitigation measures described in Subsections (3)(a) and (b) of this Section under the following conditions:

(i) The applicant demonstrates, through an appropriate hydrogeologic characterization, that any groundwater withdrawal proposed for the project will not adversely impact stream flows deemed critical to salmonids in a SWSL stream; provided, that a mitigation report referencing the hydrological determination shall be recorded on the plat and/or title; or

(ii) If the project is located outside of the watershed of the streams listed in Subsection (3)(c) of this Section; or

(iii) If the project is located in an area where groundwater is under tidal influence. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.350 Flow-sensitive basins.**

(1) Except as provided in Subsection (2) of this Section, average daily groundwater withdrawals for projects initiated after the effective dates indicated below shall be limited in each flow-sensitive basin to the amounts indicated below. The Health Officer, in coordination with the Washington Department of Ecology, shall be responsible for tracking water uses in flow-sensitive basins in accordance with Chapter 12.48 SCC.

(a) Skagit River Basin.

(i) Flow-Sensitive Basins.

<b>Lower Skagit Flow-Sensitive Basins</b>	<b>Groundwater Withdrawal Limit (gallons per day)</b>
Alder Creek	81,430
Anderson/Parker/Sorenson Creeks	20,034
Careys Creek	11,633
Carpenter/Fisher Creeks	11,633
Childs/Tank Creeks	18,096
Coal Creek	18,742
Cumberland Creek	25,851
Day Creek	131,839
Gilligan Creek	25,851
Hansen Creek	38,130
Jones Creek	67,212
Loretta Creek	11,633
Mannser Creek	15,511
Morgan Creek	13,572
Muddy Creek	28,436
Nookachamps Creek – East Fork	14,218
Nookachamps Creek – Upper	12,279
O’Toole Creek	23,266

<b>Lower Skagit Flow-Sensitive Basins</b>	<b>Groundwater Withdrawal Limit (gallons per day)</b>
Red Cabin Creek	42,653
Salmon/Stevens Creek	5,170
Wiseman Creek	18,095

<b>Upper Skagit Flow-Sensitive Basins</b>	<b>Groundwater Withdrawal Limit (gallons per day)</b>
Aldon Creek	25,851
All Creek	25,851
Bacon Creek	25,851
Barr Creek	25,851
Big Creek	25,851
Boulder Creek	25,851
Boyd Creek	25,851
Clark Creek	25,851
Corkindale Creek	25,851
Diobsud Creek	25,851
Everett Creek	25,851
Finney Creek	25,851
Flume Creek	25,851
Grandy Creek	147,350
Gravel Creek	25,851
Hilt Creek	25,851
Hobbit Creek	25,851
Illabot Creek	25,851
Irene Creek	25,851
Jackman Creek	25,851
Jordan Creek	25,851
Mill Creek	25,851
Miller Creek	25,851
O'Brian Creek	25,851
Olson Creek	25,851
Ossterman Creek	25,851
Prairie Creek	25,851

<b>Upper Skagit Flow-Sensitive Basins</b>	<b>Groundwater Withdrawal Limit (gallons per day)</b>
Pressentin Creek	25,851
Rinker Creek	25,851
Rocky Creek	25,851
Savage Creek	25,851
Sutter Creek	25,851
Tenas Creek	25,851
White Creek	25,851

(ii) **Effective Date.** Groundwater withdrawals from the flow-sensitive basins listed in Subsection (1)(a)(i) of this Section that were established after April 14, 2001, will be debited from the respective groundwater withdrawal limits.

(b) **Samish River Basin.** There shall be no density bonus for CaRD developments that rely on groundwater as the water source and where the well is located within 1/2 mile of the Samish River or Friday Creek.

(c) **Stillaguamish River Basin.**

(i) **Flow-Sensitive Basins.**

<b>Flow-Sensitive Basin</b>	<b>Groundwater Withdrawal Limit (gallons per day)</b>
Stillaguamish River and tributaries	302,400

(ii) **Effective Date.** Groundwater withdrawals from the flow-sensitive basins listed in Subsection (1)(c)(i) of this Section that were established after September 26, 2005, will be debited from the respective groundwater withdrawal limits.

(2) The Administrative Official shall report to the Health Officer the number of new residential connections or the estimated amount of consumptive water use for non-residential projects that will be created for each building permit or lot that relies on a groundwater withdrawal in a flow-sensitive basin. Groundwater withdrawals shall not be debited from the groundwater withdrawal limits established in Subsection (1) of this Section, where:

(a) The proposed groundwater withdrawal is exempt from permitting in RCW 90.44.050; and

(i) The Health Officer, using criteria developed in coordination with the Washington Department of Ecology, determines that the groundwater withdrawal will not adversely impact stream flows deemed critical to salmonids in a flow-sensitive basin; or

(ii) The applicant adopts mitigation measures approved by the Health Officer, using criteria developed in coordination with the Washington Department of Ecology, to prevent the groundwater withdrawal from adversely impacting stream flows deemed critical to salmonids in flow-sensitive basins; or

(b) The proposed groundwater withdrawal is not exempt from permitting in RCW 90.44.050 and the proposed withdrawal for a project is included in a water right permit issued by the Washington Department of Ecology and is covered by a mitigation plan approved by the Washington Department of Ecology; or

(c) The groundwater withdrawal is from an interruptible source and the applicant provides measures to supply adequate water at all times necessary for the project applied for, subject to the approval of the Health Officer; or

(d) Groundwater use for projects initiated prior to the effective date of the corresponding flow-sensitive basin designated in SCC 14.24.350, by:

(i) The applicant filing with the Administrative Official a complete application for a building permit pursuant to Chapter 15.04 SCC or for approval of a land division pursuant to Chapter 14.18 SCC prior to the effective date of the corresponding flow-sensitive basin groundwater withdrawal limit; or

(ii) The applicant filing a well log with the Washington Department of Ecology prior to the effective date of the corresponding flow-sensitive basin groundwater withdrawal limit indicating the applicant's intent to rely on a groundwater withdrawal that is exempt from permitting in RCW 90.44.050; or

(iii) The Washington Department of Ecology issuing a water right permit or certificate with a priority date that is earlier than the effective date of the respective flow-sensitive basin groundwater withdrawal limit designated in this Section.

(3) In addition to the provisions for public notice provided under SCC 14.06.150 and notice of decision under SCC 14.06.200, the Administrative Official shall provide electronic notice to the public, by use of the County's official website or otherwise, of all building permit and short subdivision applications and approvals in flow-sensitive basins. (Ord. O20080014 (part))

#### **14.24.360 Flow-sensitive basin water withdrawal mitigation.**

If a project hydrologically is located within a flow-sensitive basin, in addition to conditions imposed by the Health Officer pursuant to Chapter 12.48 SCC, mitigation measures required in SCC 14.24.340 and groundwater withdrawal mitigation measures required by the Washington State Department of Ecology, the total impervious surface area of the project containing the project shall be limited to 20%, unless:

(1) The applicant implements mitigation measures that collect stormwater runoff from the proposed development, treat that runoff, if necessary to protect groundwater quality, and discharge that collected runoff into a groundwater infiltration system on site, providing that the project is located in an area that the Administrative Official or Health Officer determines is suitable for stormwater infiltration; or

(2) The project will be served by a public water system the source for which is located hydrologically outside of a flow-sensitive basin, and wastewater will be disposed in an approved on-site wastewater treatment system that the Health Officer or Administrative Official determines will provide adequate compensating recharge to the aquifer for the total amount of impervious surface proposed; or

(3) The applicant demonstrates, through an appropriate hydrogeological characterization, that the placement of the proposed impervious surfaces will not adversely impact stream base flows in the subject tributary basin; or

(4) The applicant demonstrates that the project is located in an area where groundwater and/or surface water is influenced by tidal fluctuation. (Ord. O20080014 (part))

#### **14.24.370 Delineation of flow-sensitive basins.**

The Administrative Official shall produce maps delineating the boundaries of flow-sensitive basins, which are hereby incorporated by reference. The Administrative Official shall update maps of flow-sensitive basins as provided in SCC 14.24.050 and WAC 173-503-116. (Ord. O20080014 (part))

#### **14.24.380 Seawater intrusion areas.**

(1) Applicability. This Section applies to wells and applications for building permits; special use permits; shoreline substantial development, variance, and conditional use permits; and land divisions in the following areas:

(a) Areas within one-half mile of a marine shoreline; and

- (b) The entirety of Guemes, Sinclair, Cypress, and Vendovi Islands.
- (2) Application Requirements.
- (a) For Wells. An application proposing use of a well must include all of the following, which must be submitted for review prior to drilling any new well:
    - (i) A site plan, including:
      - (A) A dedicated inland well site location;
      - (B) Estimated depth of proposed well;
      - (C) An estimated land elevation of the well, except that if the well is within 250 feet of the shoreline, or if determined by the County Hydrogeologist, the elevation of the well must be surveyed by a licensed surveyor;
      - (D) Depth and chloride levels of surrounding wells;
    - (ii) A drilling plan;
    - (iii) Payment of applicable fees.
  - (b) For Alternative Water Sources. An application proposing use of an alternative water source must include the following:
    - (i) Documentation of system design consistent with this Section and SCC 12.48.250;
    - (ii) Payment of applicable fees.
  - (c) For Land Divisions. In addition to any applicable requirements above, an application for a land division proposing use of a well must include the following:
    - (i) An assessment of the available groundwater, including a report from a demonstration well located so that it will represent the groundwater under the entire land division and with consideration to where other wells will be located in the land division;
    - (ii) If the proposed land division is within an area of documented chlorides in excess of 25 ppm, all well locations must be specified and spaced 100 feet or more from any other well, including wells on neighboring properties.
- (3) Development Standards for Alternative Water Sources.
- (a) Where a known seawater intrusion problem exists, alternative sources of water are encouraged, but must comply with the requirements of SCC 12.48.250.
  - (b) Reverse Osmosis (RO) Systems. Any reverse osmosis (RO) system must be designed to:
    - (i) Use seawater collected from the open sea as the water source; and
    - (ii) Discharge effluent only to the open sea.
- (4) Development Standards for Wells.
- (a) Generally. For both existing and new wells, a well driller must:
    - (i) Install a wellhead source meter;
    - (ii) Install a sounding tube to allow water level measurements;

- (iii) Set the maximum pumping rate consistent with Table 14.24.380-1;
- (iv) Conduct a pump test under the supervision of a licensed well driller or licensed hydrogeologist, consistent with the following:
  - (A) Use the conservative maximum pumping rate defined in Table 14.24.380-1, or if the well driller proposes to use more than the maximum pumping rate in Table 14.24.380-1, include a hydrogeological assessment (including pump tests) using observation wells;
  - (B) Pump a minimum of 350 gallons from the formation during the test;
  - (C) Continue the pump test for at least four hours after water level stabilization has occurred, or for the timespan determined by the County Hydrogeologist, whichever is longer.
- (b) Documentation of Installation. The well driller must submit the following after the pump test:
  - (i) Well ID;
  - (ii) Proof of the sounding tube installation;
  - (iii) The maximum pumping rate set;
  - (iv) A record of the static water level depth prior to starting the pump test;
  - (v) Pumping rates during the pump test;
  - (vi) Drawdown measurements recorded throughout the pumping test in intervals as approved by the County Hydrogeologist;
  - (vii) The time of day when the drawdown measurement was observed;
  - (viii) Exact time of pump start and stop;
  - (ix) Any changes in pumping rate during the test;
  - (x) Measurement of water level following pump shutoff until the water level in the well recovers to at least 95 percent of its pre-pumping level, including time of measurement.
- (c) Documentation of Elevation. Before final inspection, the applicant must submit a land elevation of the well as surveyed by a licensed surveyor.
- (d) Maximum Pumping Rates.
  - (i) The maximum pumping rate for wells must be set consistent with the following table.
  - (ii) A maximum pumping rate other than that in the table may be set if approved by the County Hydrogeologist.

**Table 14.24.380-1. Maximum pumping rates.**

Location	Chloride level		
	0—24 ppm	25—99 ppm	100—250* ppm
less than 1/2 mile from the coast for areas in (1)(a)	as determined or approved by the County hydrogeologist		
less than 1/2 mile from	3 gpm	2 gpm	1 gpm

Location	Chloride level		
	0—24 ppm	25—99 ppm	100—250* ppm
the coast for islands in (1)(b)			
greater than 1/2 mile from the coast for islands in (1)(b)	3 gpm	3 gpm	3 gpm

(Ord. O20160004 § 6 (Att. 6))

**14.24.400 Geologically hazardous areas designations.**

Geologically hazardous areas shall be designated consistent with the definitions provided in WAC 365-190-030 and 365-190-120. These include areas susceptible to the effects of erosion, sliding, earthquake, or other geologic events. They pose a threat to the health and safety of citizens when incompatible residential, commercial, industrial, or infrastructure development is sited in areas of a hazard. Geologic hazards pose a risk to life, property, and resources when steep slopes are destabilized by inappropriate activities and development or when structures or facilities are sited in areas susceptible to natural or human-caused geologic events. Some geologic hazards can be reduced or mitigated by engineering, design, or modified construction practices so that risks to health and safety are acceptable. When technology cannot reduce risks to acceptable levels, building and other construction in, above and below geologically hazardous areas should be avoided. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.410 Geologically hazardous areas known or suspected risk.**

Geologically hazardous areas shall be classified as “known or suspected risk” or “unknown risk.” Areas of known or suspected risk are indicated in Subsections (1) through (5) of this Section.

(1) The following are considered known or suspected erosion hazards:

- (a) Areas with gradients greater than or equal to 30%.
- (b) Areas located within the following map units: No. 1 Andic Cryochrepts, Nos. 3 and 4 Andic Xerochrepts, No. 13 Birdsvie, Nos. 47 and 48 Dystric Xerochrepts, Nos. 50 and 51 Dystric Xerorthents, Nos. 63 and 65 Guemes, No. 69 Hoogdal, No. 90 Lithic Haploxerolls, No. 91 Marblemount, No. 99 Mundt and Nos. 150 and 151 Typic Cryorthods or mapped severe erosion hazard, as identified in the U.S. Department of Agriculture Natural Resources Conservation Service Soil Survey of Skagit County Area, WA (1989).
- (c) Coastal beaches or bluffs.
- (d) Areas designated in the Department of Ecology, Coastal Zone Atlas, Washington, Volume Two Skagit County (1978) as U (Unstable), UB (Unstable Bluff), URS (Unstable Recent Slide), or UOS (Unstable Old Slide).
- (e) Areas susceptible to rapid stream incision and stream bank erosion.

(2) Landslide hazards are areas potentially subject to landslides based on a combination of geologic, topographic and hydrologic factors. The following are known or suspected landslide hazards:

- (a) Areas designated in the Department of Ecology, Coastal Zone Atlas, Washington, Volume Two, Skagit County (1978) as U (Unstable), UB (Unstable Bluff), URS (Unstable Recent Slide), or UOS (Unstable Old Slide).
- (b) Slopes having gradients of 15% or greater:
  - (i) That intersect geologic contacts with permeable sediments overlying low-permeability sediment or bedrock and springs or groundwater seepage are present; or

- (ii) That are parallel or subparallel to planes of weakness (such as bedding planes, joint systems, and fault planes) in subsurface materials.
  - (c) Slopes of 40% or steeper and with a vertical relief of 10 feet or more.
  - (d) Areas of previous failure such as earth slumps, earthflows, mudflows, lahars, debris flows, rock slides, landslides or other failures as observed in the field or as indicated on maps or in technical reports published by the U.S. Geological Survey, the Geology and Earth Resources Division of the Washington Department of Natural Resources, or other documents authorized by government agencies.
  - (e) Potentially unstable areas resulting from rapid stream incision, stream bank erosion, and undercutting by wave action.
  - (f) Coastal bluffs.
  - (g) Slopes with a gradient greater than 80% and subject to rock fall.
  - (h) Areas that are at risk from snow avalanches.
  - (i) Areas designated on the Skagit County Alluvial Fan Study Orthophoto Maps as alluvial fans or as identified by the Administrative Official during site inspection.
  - (j) Areas located in a narrow canyon potentially subject to inundation by debris flows or catastrophic flooding.
  - (k) Those areas delineated by the U.S. Department of Agriculture's Natural Resources Conservation Service Soil Survey of Skagit County as "severe" (Table 9) limitation for building development.
- (3) Seismic hazard areas are subject to severe risk of damage as a result of earthquake-induced ground shaking, slope failure, settlement, soil liquefaction or surface faulting. The following are known or suspected seismic hazards:
- (a) Areas located within a high liquefaction susceptibility as indicated on the Liquefaction Susceptibility Map of Skagit County issued by Washington Department of Natural Resources dated September 3, 2004, or as amended thereafter. A site assessment is not required for high liquefaction hazard areas for single-family residence proposals unless other criteria provided in this Section apply.
  - (b) Areas located within 1/4 mile of an active fault as indicated on investigative maps or described in studies by the United States Geologic Survey, Geology and Earth Resources Division of the Washington Department of Natural Resources, or other documents authorized by government agencies, or as identified during site inspection.
  - (c) Those known or suspected erosion and landslide hazards referenced in Subsections (1) and (2) of this Section.
  - (d) Tsunami and seiche hazard areas include coastal areas and lake shoreline areas susceptible to flooding, inundation, debris impact, and/or mass wasting as the result of coastal or inland wave action generated by seismic events or other geologic events. Suspect tsunami hazard areas are indicated on the Tsunami Hazard Map of the Anacortes-Whidbey Island Area, Washington: Modeled Tsunami Inundation from a Cascadia Subduction Zone Earthquake. A site assessment is not required for tsunami and seiche hazard areas but they are addressed through the frequently flooded section of this Chapter.
- (4) Volcanic hazard areas are subject to pyroclastic flows, lava flows, debris avalanche, and inundation by debris flows, mudflows, lahars or related flooding resulting from volcanic activity. Suspect volcanic hazards include those areas indicated in the United States Geologic Survey Open-File Report 95-499 as the volcanic hazard zone for Glacier Peak, Washington; or in the United States Geologic Survey Open-File Report 95-498 as the volcanic hazard area of Mount Baker, Washington. A site assessment is not required for volcanic hazard areas unless other criteria provided in this section apply.

(5) Mine hazard areas as designated on the Department of Natural Resources Map: Coal Measures of Skagit County (1924) or within 200 feet of any other current or historic mine operations determined to be a suspect or known geologically hazardous area by the Administrative Official. (Ord. O20080014 (part))

**14.24.420 Geologically hazardous areas site assessment requirements.**

(1) If the Administrative Official determines that the proposed development activity is located within 200 feet of an area of known or suspected risk as indicated in SCC 14.24.410, or within a distance from the base of a landslide hazard area equal to the vertical relief, and that the geologic condition may pose a risk to life and property, or other critical areas on and off the project area, a geologic hazard site assessment as indicated in this Section shall be required. This site assessment shall be prepared by a qualified professional.

(2) The geologically hazardous area site assessment shall classify the type of geologic hazard(s) in accordance with SCC 14.24.400 and 14.24.410. In addition to the requirements of SCC 14.24.080, the site assessment shall include the following:

- (a) A site plan depicting the height of slope, slope gradient and cross section indicating the stratigraphy of the site. The site plan shall indicate the location of all existing and proposed structures and any significant geologic features such as outcrops, springs, seeps, ponds, streams or other water bodies; and
- (b) An assessment of the geologic characteristics and engineering properties of the soils, sediments, and/or rock of the subject property and potentially affected adjacent properties. Soils shall be described in accordance with the Unified Soil Classification System; and
- (c) A description of load intensity, surface and groundwater conditions, public and private sewage disposal systems, fills and excavations and all structural development; and
- (d) A description of the extent and type of vegetative cover including tree attitude; and
- (e) For potential coastal bluff geologic hazards: estimate of the bluff retreat rate, which recognizes and reflects potential catastrophic events such as seismic activity or a 100-year storm event; and
- (f) For potential landslide hazards: estimate slope stability and the effect construction and placement of structures will have on the slope over the estimated life of the structure. Quantitative analysis of slope stability or slope stability modeling may be required by the Administrative Official; and
- (g) Additional site assessment elements may be required by the Administrative Official.

(3) Properties containing geologically hazardous conditions identified by the Administrative Official and the qualified professional shall require a geologically hazardous area mitigation plan. (Ord. O20080014 (part))

**14.24.430 Geologically hazardous area mitigation standards.**

The mitigation plan shall be prepared by a qualified professional and include a discussion on how the project has been designed to avoid and minimize the impacts discussed under SCC 14.24.420. The plan shall also make a recommendation for the minimum setback from the geologic hazard. Mitigation plans shall include the location and methods of drainage, locations and methods of erosion control, a vegetation management and/or restoration plan and/or other means for maintaining long-term stability of geologic hazards. The plan shall also address the potential impact of mitigation on the hazard area, the subject property and affected adjacent properties. The mitigation plan must be approved by the Administrative Official and be implemented as a condition of project approval.

One or more of the following mitigation standards, as required by the Administrative Official, shall be included as components of a mitigation plan pursuant to the requirements of SCC 14.24.420. Mitigation standards, other than those listed below, may be required by the Administrative Official depending on the geologic hazard and the site conditions.

(1) Mitigation Standards.

- (a) A construction stormwater pollution prevention plan per SCC Chapter 14.32 (Stormwater Management).

- (b) A plan for the collection, transport, treatment, discharge and/or recycling of stormwater in accordance with the requirements of SCC Chapter 14.32, as amended. Surface drainage shall not be directed across the face of a landslide hazard (including marine bluffs or ravines). If drainage must be discharged from the hazard area into adjacent waters, it shall be collected above the hazard and directed to the water by tight line drain and provided with an energy dissipating device at the point of discharge.
  - (c) All proposals involving excavation and/or placement of fill shall be subject to structural review under the appropriate provisions of the International Building Code (IBC) as amended by Skagit County.
  - (d) Critical facilities as defined under Chapter 14.04 SCC shall not be sited within designated geologically hazardous areas with the exception of volcanic hazard areas. No critical facilities shall be located within 1/4 mile of an active fault.
  - (e) All infiltration systems, such as stormwater detention and retention facilities and curtain drains utilizing buried pipe or French drains, are prohibited in geologically hazardous areas and their buffers unless the mitigation plan indicates such facilities or systems will not affect slope stability.
  - (f) Existing vegetation shall be maintained in landslide and erosion hazard areas and associated buffers. Any replanting that occurs shall consist of native trees, shrubs, and ground cover that is compatible with the existing surrounding native vegetation, meets the objectives of erosion prevention and site stabilization, and does not require permanent irrigation for long-term survival. Normal nondestructive pruning and trimming of vegetation for maintenance purposes; or thinning of limbs of individual trees to provide a view corridor, shall not be subject to these requirements.
  - (g) A minimum buffer width of 30 feet shall be established from the top, toe and all edges of all landslide and erosion hazard areas. For landslide and erosion hazard areas with a vertical relief greater than 50 feet, the minimum buffer shall be 50 feet. The buffer may be increased by the Administrative Official for development adjacent to a marine bluff or ravine which is designated as Unstable in the Coastal Zone Atlas, Washington, Volume Two, Skagit County (1978) or where the Administrative Official determines a larger buffer is necessary to prevent risk of damage to existing and proposed development.
  - (h) Structural development proposals within seismic hazard areas shall meet all applicable provisions of the IBC as amended by Skagit County. The Administrative Official shall evaluate documentation submitted pursuant to SCC 14.24.420(2) and condition permit approvals to minimize the risk on both the subject property and affected adjacent properties. All conditions shall be based on known, available, and reasonable methods of prevention, control and treatment. Evaluation of geotechnical reports may also constitute grounds for denial of the proposal.
  - (i) No residential structures shall be located in geologic hazard areas or their buffers if that hazard cannot be fully mitigated.
- (2) Landslide or Erosion Hazard Buffer Reduction. Buffers of landslide or erosion hazard areas may be reduced to a minimum of 10 feet for development meeting all of the following criteria:
- (a) No reasonable alternative to buffer reduction exists; and
  - (b) A site assessment is submitted and certifies that:
    - (i) There is a minimal hazard in the vicinity of the proposed development as proven by evidence of no landslide activity in the past; and
    - (ii) A quantitative slope stability analysis indicates no significant risk to the development proposal and adjacent properties; or the geologically hazardous area can be modified; or the development proposal can be designed so that the hazard is eliminated. The quantitative analysis shall include the minimum setback allowed for development as indicated by a slope stability model with respect to a minimum factor of safety of 1.5 for static conditions, 1.25 for seismic conditions, or 10 feet, whichever results in the greater setback.

The elements of the quantitative site assessment shall be determined by the Administrative Official and may include 1 or more of the following:

- (A) Subsurface exploration, to include at least 1 boring with sample collection for laboratory analysis.
  - (B) Laboratory analysis shall assess the soil characteristics and include sieve analysis, moisture, angle of internal friction, and cohesion.
  - (C) Utilizing the information from the subsurface exploration and laboratory analysis, the quantitative site assessment shall include slope stability modeling with factor of safety analysis. The analysis shall indicate the factor of safety within 50 feet of the top and toe of geologic hazards; and
  - (iii) The development will not significantly increase surface water discharge or sedimentation to adjacent properties beyond pre-development conditions; and
  - (iv) The development will not decrease slope stability on adjacent properties; and
  - (v) Such alterations will not adversely impact other critical areas.
- (3) Failed Mitigation Plans. Mitigation plans which do not fulfill the performance requirement based on the site assessment/geotechnical report findings or otherwise fail to meet the intent of this Chapter shall be revised and the subject development brought into compliance with the revised mitigation plan.
- (4) Mitigation Plan Verification. Upon completion of the project, a qualified professional shall verify that the mitigation plan has been properly implemented. The verification shall be required prior to final approval of the project by the Administrative Official. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.500 Fish and wildlife habitat conservation area designations.**

(1) Fish and wildlife habitat conservation areas (HCAs) are listed in WAC 365-190-130 and are designated as follows:

- (a) Areas with which endangered, threatened, and sensitive species have a primary association;
- (b) Habitats and species of local importance that have been designated by the County (Subsection (4) of this Section);
- (c) All public and private tidelands suitable for shellfish harvest;
- (d) Kelp and eelgrass beds, herring and smelt spawning areas;
- (e) Naturally occurring ponds under 20 acres with submerged aquatic beds that provide fish or wildlife habitat as further defined in WAC 365-190-130(4)(e);
- (f) Waters of the State as defined by WAC 222-16-030;
- (g) Lakes, ponds, streams, and rivers planted with game fish by a governmental or tribal entity;
- (h) Areas with which anadromous fish species have a primary association;
- (i) State natural area preserves and natural resource conservation areas;
- (j) Other aquatic resource areas;
- (k) State priority habitats and areas associated with State priority species as defined in WAC 365-190-080; and
- (l) Areas of rare plant species and high quality ecosystems as identified by the Washington State Department of Natural Resources through the Natural Heritage Program in Chapter 79.70 RCW.

(2) In addition to the HCAs identified in Subsection (1) of this Section, additional habitats and species of local importance may be designated by the Administrative Official based on declining populations, sensitivity to habitat manipulation or special value including but not limited to commercial, game or public appeal.

(3) In order to nominate an area or a species to the category of habitats and species of local importance, an individual or organization must:

- (a) Demonstrate a need for special consideration based on:
  - (i) Declining population;
  - (ii) Sensitivity to habitat manipulation; or
  - (iii) Commercial or game value or other special value, such as public appeal; and
- (b) Propose relevant management strategies considered effective and within the scope of this Chapter; and
- (c) Provide species habitat location(s) on a map (scale 1:24,000). Submitted proposals will be reviewed by the Administrative Official and forwarded to the Departments of Fish and Wildlife, Natural Resources, and/or other local and State agencies or experts for comments and recommendations regarding accuracy of data and effectiveness of proposed management strategies.

Skagit County will hold a public hearing for proposals found to be complete, accurate, potentially effective and within the scope of this Chapter. Approved nominations will become designated “habitats/species of local importance” and will be subject to the provisions of this Chapter.

(4) The following species and habitats have been designated on a site-specific basis according to the official Habitats and Species of Local Importance Map:

- (a) Great blue heron nest sites;
- (b) Vaux’s swifts communal roosts;
- (c) Pileated woodpecker nest sites;
- (d) Osprey nest sites;
- (e) Townsend big-eared bat communal roosts;
- (f) Cavity nesting duck breeding areas;
- (g) Trumpeter swan concentrations;
- (h) Harlequin duck breeding areas;
- (i) Waterfowl concentrations. (Ord. O20160004 § 6 (Att. 6); Ord. O20080014 (part))

**14.24.510 Fish and wildlife habitat conservation area water type classification.**

Water types shall be classified according to WAC 222-16-030. Type S streams include shorelines of the State and have flows averaging 20 or more cubic feet per second; Type F streams are those that are not Type S but still provide fish habitat; and Type N streams do not have fish habitat and are either perennial (Np) or seasonal (Ns). All streams are those areas where surface waters flow sufficiently to produce a defined channel or bed as indicated by hydraulically sorted sediments or the removal of vegetative litter or loosely rooted vegetation by the action of moving water. Ns waters must be physically connected by an above-ground channel system to Type S, F, or Np waters. (Ord. O20080014 (part))

**14.24.520 Fish and wildlife habitat conservation area site assessment requirements.**

Any project within 200 feet of a fish and wildlife habitat conservation area outside the special flood hazard area (SFHA) or within the protected review area as defined in SCC 14.34.055 requires a fish and wildlife HCA site assessment. In addition to the requirements of SCC 14.24.080, the following shall be included in the site assessment:

- (1) Functions and values analysis, which includes but is not limited to a discussion of water quality/quantity and fish and wildlife habitat; and
- (2) An analysis of the riparian buffer areas above the ordinary high water mark including:
  - (a) Recruitment of large woody debris (LWD) to the stream;
  - (b) Shade;
  - (c) Bank integrity (root reinforcement);
  - (d) Runoff filtration;
  - (e) Wildlife habitat.
- (3) Bald eagle habitats shall be protected pursuant to the Washington State Bald Eagle Protection Rules (WAC 232-12-292), as revised; a cooperative habitat management plan shall be developed in coordination with the Department of Fish and Wildlife whenever activities that alter habitat are proposed near a verified nest territory or communal roost.
- (4) All other fish and wildlife habitat conservation areas, including habitats and species of local importance, shall be protected on a case-by-case basis by means of a habitat management plan based on the Washington State Priority Habitat and Species (PHS) program, as set forth in the site assessment requirements in SCC 14.24.080 and this Section. (Ord. O20110008 (part); Ord. O20090011 Atch. 2 (part); Ord. 17938 Atch. F (part), 2000)

**14.24.530 Fish and wildlife habitat conservation area protection standards.**

- (1) Riparian Buffers. Riparian buffers apply only to streams and rivers.
  - (a) Intent of Riparian Buffers. The intent of riparian buffers is to protect the following 5 basic riparian forest functions that influence in-stream and near-stream habitat quality:
    - (i) Recruitment of Large Woody Debris (LWD) to the Stream. LWD creates habitat structures necessary to maintain salmon/trout and other aquatic organisms' productive capacity and species diversity.
    - (ii) Shade. Shading by the forest canopy maintains cooler water temperatures and influences the availability of oxygen for salmon/trout and other aquatic organisms.
    - (iii) Bank Integrity (Root Reinforcement). Bank integrity helps maintain habitat quality and water quality by reducing bank erosion and creating habitat structure and in-stream hiding cover for salmon/trout and other aquatic organisms.
    - (iv) Runoff Filtration. Filtration of nutrients and sediments in runoff (surface and shallow subsurface flows) helps maintain water quality.
    - (v) Wildlife Habitat. Functional wildlife habitat for riparian-dependent species is based on sufficient amounts of riparian vegetation to provide protection for nesting and feeding.
  - (b) Standard Riparian Buffers Measurement. Riparian buffer areas shall be measured horizontally in a landward direction from the ordinary high water mark. Where lands adjacent to a riparian area display a continuous slope of 25% or greater, the buffer shall include such sloping areas. Where the horizontal distance of the sloping area is greater than the required standard buffer, the buffer shall be extended to a point 25 feet beyond the top of the bank of the sloping area. Riparian areas do not extend beyond the toe of the slope on the landward side of existing dikes or levees within established dike districts along the Skagit and Samish Rivers.

(c) Standard Riparian Buffer Widths. Riparian areas have the following standard buffer widths:

DNR Water Type	Riparian Buffer
S	200 feet
F > 5 feet wide*	150 feet
F ≤ 5 feet wide*	100 feet
Np	50 feet
Ns	50 feet

\*Bankfull width of the defined channel (WAC 222-16-010).

(2) Lake and Marine Shoreline Buffers. Lake and marine shoreline areas have the following standard buffer widths, based on the shoreline area designations defined in the Shoreline Master Program (Chapter 14.26 SCC):

Shoreline Area Designations	Shoreline Buffer
Natural	200 feet
Conservancy	150 feet
Rural	100 feet
Rural Residential	100 feet
Urban	140 feet

(3) Where a buffer has been previously established after June 13, 1996, through a County development review and is permanently recorded on title or placed within a separate tract or easement, the buffer shall be as previously established. Additional review may be requested by the applicant or required by the Administrative Official to determine whether or not conditions on site have changed resulting in the previously established buffer no longer being applicable.

(4) Where a legally established and constructed public roadway transects a riparian buffer, the Department may approve a modification of the standard buffer width to the edge of the roadway, provided:

- (a) The isolated part of the buffer does not provide additional protection of the riparian area; and
- (b) The isolated part of the buffer provides insignificant biological, geological or hydrological buffer functions relating to the riparian area; and
- (c) If the resulting buffer distance is less than 50% of the standard buffer for the applicable stream type or shoreline designation, no further reduction shall be allowed. (Ord. O20090011 Attch. 2 (part); Ord. O20080014 (part))

**14.24.540 Fish and wildlife habitat conservation area performance-based buffer alternatives and mitigation standards.**

(1) Buffer Width Increasing. The Administrative Official may require the standard buffer width to be increased or to establish a nonriparian buffer, when such buffers are necessary for 1 of the following:

- (a) To protect priority fish or wildlife using the HCA.
- (b) To provide connectivity when a Type S or F water body is located within 300 feet of:
  - (i) Another Type S or F water body; or

- (ii) A fish and wildlife HCA; or
- (iii) A Category I, II or III wetland;

The increased buffer distance may be limited to those areas that provide connectivity or are necessary to protect habitat functions. Increasing the buffer widths will only be done where necessary to preserve the structure, function and value of the habitat.

(2) **Buffer Width Averaging.** Buffer width averaging allows limited reductions of buffer width in specified locations, while requiring increases in others. Averaging of required buffer widths shall be allowed only where the applicant demonstrates to the Administrative Official that all of the following criteria are met:

- (a) Averaging is necessary to accomplish the purpose of the proposal and no reasonable alternative is available; and
- (b) The habitat contains variations in sensitivity due to existing physical characteristics; and
- (c) Averaging will not adversely impact the functions and values of fish and wildlife conservation areas; and
- (d) Averaging meets performance standards for protecting fish species; and
- (e) The total area contained within the buffer after averaging is no less than that contained within the standard buffer prior to averaging; and
- (f) The buffer width shall not be reduced below 75% of the standard buffer width.

(3) **Buffer Width Decreasing.** Buffers may be reduced when buffer reduction impacts are mitigated and result in equal or greater protection of the HCA functions and values. Prior to considering buffer reductions, the applicant shall demonstrate application of mitigation sequencing as required in SCC 14.24.080. In all circumstances where a substantial portion of the remaining buffer is degraded, the buffer reduction plan shall include replanting with native vegetation in the degraded portions of the remaining buffer area and shall include a 5-year monitoring and maintenance plan.

(4) **Buffer Width Variance.** Standard buffer widths may be reduced by more than 25% through a variance pursuant to SCC 14.24.140.

(5) **Allowed Uses in HCAs or Buffers.** The following activities may be permitted within fish and wildlife HCAs, provided the activities comply with SCC 14.24.080, 14.24.520, and Chapter 14.34 SCC, where applicable.

(a) **Roads, Bridges and Utilities.** Road, bridge and utility construction may be permitted across an HCA and/or its buffer under the following conditions:

- (i) It is demonstrated to the Administrative Official that there are no alternative routes that can be reasonably used to achieve the proposed development; and
- (ii) The activity will have minimum adverse impact to the fish and wildlife HCA; and
- (iii) The activity will not significantly degrade surface or groundwater; and
- (iv) The intrusion into the fish and wildlife HCA and its buffers is fully mitigated.

(b) **Docks.** Docks designed to facilitate low-impact uses, such as education and/or private, noncommercial recreation, may be permitted within fish and wildlife HCAs under the following conditions:

- (i) The activity will have minimum adverse impact to the fish and wildlife HCA; and
- (ii) The activity will not significantly degrade surface or groundwater; and
- (iii) The intrusion into the fish and wildlife HCA and its buffers is fully mitigated; and

- (iv) The activity shall be consistent with the provisions of Chapter 14.26 SCC.
- (c) Bulkheads. Bulkheads designed to protect existing single-family residences may be permitted within fish and wildlife HCAs under the following conditions:
  - (i) The activity will have minimum adverse impact to the fish and wildlife HCA; and
  - (ii) The activity will not significantly degrade surface or groundwater; and
  - (iii) The intrusion into the fish and wildlife HCA shall be fully mitigated; and
  - (iv) The activity shall be consistent with the provisions of Chapter 14.26 SCC.
- (d) Limited park or recreational access to an HCA or its required buffer; provided, that all of the following are satisfied:
  - (i) The access is part of a public park or a recreational resort development that is dependent on the access for its location and recreational function; and
  - (ii) The access is limited to the minimum necessary to accomplish the recreational function; and
  - (iii) The access and the balance of the development are consistent with other requirements of SCC Title 14; and
  - (iv) The proponent obtains written approval from the County for the limited access and associated mitigation.
- (e) Low-impact uses and activities which are consistent with the purpose and function of the buffer and do not detract from its integrity may be permitted within the buffer depending on the sensitivity of the habitat involved; provided, that such activity shall not result in a decrease in riparian functions and values and shall not prevent or inhibit the buffer's recovery to at least pre-altered condition or function. Examples of uses and activities which may be permitted in appropriate cases, as long as the activity does not retard the overall recovery of the buffer, include removal of noxious vegetation, pedestrian trails and viewing platforms less than 200 square feet in size which may be covered but not enclosed.
- (f) Stormwater discharges shall be controlled and treated in accordance with the Stormwater Management Manual for Western Washington, Department of Ecology publication Nos. 05-10-029 through 05-10-033.
- (g) To allow for greater flexibility in a development proposal, an applicant has the opportunity to remove timber within the standard buffer widths shown above if the applicant's mitigation measures incorporate all of the performance standards based upon water type listed in the table below. In conformance with professional standards used by the Washington Department of Natural Resources for forest practices in sensitive areas, all removal of timber within HCA buffers shall be subject to conditioning specified by the Administrative Official in conjunction with an on-site technical team review in which participation by representatives of the proponent, Ecology, WDFW, WDNR and natural resource representatives of affected Indian tribes is solicited.

The intent of this Section is to provide an additional opportunity for an applicant to propose some level of timber removal within the riparian habitat zone, as long as it can be demonstrated that the function of the buffer can be maintained at the levels described below. If the buffer, in its current state, cannot meet these standards, then the Administrative Official will not be able to give its approval for any activity which would inhibit recovery of or degrade the current buffer.

The current performance of a given buffer area is compared to its potential performance as rated by the Soil Conservation Service, Soil Survey of Skagit County, 1989. In consultation with a representative from the Natural Resource Conservation Service, Soil Conservation District or professional forester, the applicant will determine the capability of the site for woodland management, using the most suitable tree species according to the soil survey, and establish the stand characteristics that would be expected from a mature stand of those species established on site:

If the current stand can exceed the riparian protection that could be expected based on site potential, then additional activity may be allowed provided the following performance standards can be met. For Type S streams, an alternative method may be utilized to allow limited timber harvest within the outer 100 feet of a buffer:

**PERFORMANCE-BASED RIPARIAN STANDARDS\***

*(These standards must be exceeded before additional activity can be permitted within the riparian zone.)*

Watertype	Performance Standards
Type S	Maintain 95% of total LWD recruitment expected to enter the stream from a mature stand; and Maintain 85% of the trees which are greater than 24 inches DBH within 100 feet of stream; and Maintain an average of 75% canopy cover (based on canopy densitometer readings at stream edge). The applicant may further request some limited timber harvest of up to 30% of the merchantable timber within the outer 100 feet of any 200-foot required buffer provided the harvest: (a) Does not reduce the LWD and canopy requirements; and (b) The applicant will increase the total buffer size by 50 feet to mitigate for the limited timber harvest in the required buffer to provide additional wildlife habitat. The additional 50-foot buffer shall retain a minimum of 50% of the total number of trees with 25% of the total trees left having a diameter at breast height (DBH—4-1/2 feet) greater than 12 inches; and (c) No more than 50% of the dominant trees in the outer 100 feet may be harvested.
Type F	Maintain 85% of total LWD recruitment expected to enter the stream from a mature stand; and Maintain 85% of the trees which are greater than 18 inches DBH within 100 feet of stream; and Maintain an average of 75% canopy cover (based on canopy densitometer readings at stream edge).
Types Np and Ns	Maintain 50% of total LWD recruitment expected to enter the stream from a mature stand; and Maintain 85% of the trees which are greater than 24 inches DBH within 50 feet of stream; and Maintain an average of 75% canopy cover (based on canopy densitometer readings at stream edge).

\* Note: Applicants electing to employ performance-based mitigation in accordance with the above matrix shall include appropriate analysis and justification in their site assessment/habitat management plan.

(Ord. O20110008 (part): Ord. O20080014 (part))

**14.24.600 Frequently flooded areas designations.**

Frequently flooded areas shall be designated as those areas identified as A, AO, AH, A1—10, A12, A14, A16, A18, A21—22, V1 and V4 zones on the official Flood Insurance Rate Map for Skagit County, as amended. Cumulatively these zones represent the floodway and 100-year floodplain. (Ord. O20080014 (part))

**14.24.610 Frequently flooded areas initial project review.**

Project review shall be conducted in accordance with the procedures and requirements for reviewing an application for a permit under Chapter 14.34 SCC as amended. (Ord. O20080014 (part))

**14.24.620 Frequently flooded areas development requirements.**

Development criteria and associated engineering requirements for frequently flooded areas shall be addressed under the provisions of Chapter 14.34 SCC. (Ord. O20080014 (part))

**14.24.630 Frequently flooded areas protection standards.**

- (1) All development shall conform to the provisions of Chapter 14.34 SCC and the International Building Code, which contain structural safeguards to reduce risk to human life, health and property from flooding.
- (2) Any use or development shall not alter the normal movement of surface water in a manner that would cause the unnatural diversion of floodwater to otherwise flood-free areas.
- (3) The applicant shall demonstrate that the development is not likely to adversely affect species protected under the Endangered Species Act, consistent with the provisions of Chapter 14.34 SCC and this Chapter. (Ord. O20110008 (part); Ord. O20080014 (part))

**14.24.700 Compliance tracking.**

- (1) The Administrative Official shall undertake a coordinated system of compliance tracking to ensure that conditions of approval, mitigation requirements, and required landowner maintenance and/or monitoring responsibilities are being met.
- (2) Compliance tracking efforts shall include complaint-driven site visits and review on an annual basis by a representative monitoring of projects or activities having received critical areas approval a minimum of 10 months prior to the monitoring date. Results of such monitoring shall be included in the permanent record for the project or activity and shall be utilized for enforcement purposes.
- (3) If, based on compliance tracking efforts, the Administrative Official discovers violations of this Chapter, such violations shall be subject to the enforcement provisions set forth under Chapter 14.44 SCC.
- (4) If the Administrative Official determines that increased compliance tracking is warranted based on unacceptably high levels of noncompliance, the number of projects or activities to be monitored shall be increased. (Ord. O20080014 (part))

**14.24.710 Fees.**

The Board of County Commissioners by resolution after a public hearing shall establish fees for projects requiring additional services by the County, to be on the basis of all direct costs incurred by the County, including, but not limited to, the following:

- (1) Costs of inspection time;
- (2) Costs for testing completed facilities;
- (3) Costs for administration;
- (4) Costs of engineering review time;
- (5) Costs for evaluation of noncompliant activities, for determination of associated mitigation requirements, and for implementation of required mitigation if undertaken by the County;
- (6) Any other special costs attributable to the project. (Ord. O20080014 (part))

**14.24.720 Administrative Official.**

- (1) The Administrative Official or duly authorized agent shall administer and enforce this Chapter. The Administrative Official shall apply the provisions of this Chapter consistent with the Washington State Growth Management Act (Chapter 36.70A RCW), the Skagit County Comprehensive Plan, the Skagit County Countywide Planning Policies and the goals of this Chapter. In all instances where administrative discretion is exercised, the Administrative Official shall document the basis for such determinations. Such documentation shall be included in the official file for the proposed project or activity and be made available to the public upon request.
- (2) If the Administrative Official finds that any of the provisions of this Chapter are being violated, he or she shall notify, in writing, the person responsible for such violations, indicating the nature of the violation and ordering the action necessary to correct it. The Administrative Official shall take all actions authorized by this Chapter to

ensure compliance with or to prevent violation of its provisions, including referring violations to the prosecutor's office. (Ord. O20080014 (part))

**14.24.730 Appeals from the Administrative Official.**

Appeals may be taken to the Hearing Examiner by any aggrieved party affected by any decision of the Administrative Official under this Chapter. Such appeals shall be filed and processed consistent with the provisions of Chapter 14.06 SCC. (Ord. O20080014 (part))

**14.24.740 Interdisciplinary team.**

The Administrative Official, Hearing Examiner or other appropriate hearing body may, as they deem necessary, utilize an interdisciplinary team to provide technical assistance where necessary to assess a proposal or make a determination.

- (1) Members of the interdisciplinary team shall be selected by the Administrative Official, Hearing Examiner or appropriate hearing body. Selection of the team shall include the proponents (upon their request) and local, State, Tribal or Federal representatives with expertise in the field and/or independent professionals with expertise relating to the critical areas issue.
- (2) The functions of the interdisciplinary team are to field-check and verify critical areas determinations by reviewing the information included with an application, identify areas of concern, and help focus the preparation of subsequent reports and environmental documentation on the most relevant issues.
- (3) The Administrative Official, Hearing Examiner or appropriate hearing body will coordinate this effort and pursue a consensus process in seeking advice from the team.
- (4) A complete public record will be maintained of written opinions submitted by individual team members. (Ord. O20080014 (part))

## Chapter 14.34

### FLOOD DAMAGE PREVENTION

Sections:

- 14.34.005 Definitions.
  - 14.34.010 Statutory authorization.
  - 14.34.020 Findings of fact.
  - 14.34.030 Statement of purpose.
  - 14.34.040 Methods of reducing flood losses.
  - 14.34.050 Basis for establishing areas of special flood hazard.
  - 14.34.055 Protected review area.
  - 14.34.060 Compliance.
  - 14.34.070 Abrogation and greater restrictions.
  - 14.34.080 Interpretation.
  - 14.34.090 Warning and disclaimer of liability.
  - 14.34.100 Floodplain development permits.
  - 14.34.110 Applications.
  - 14.34.120 Administrative Official—Duties.
  - 14.34.130 Variances and appeals.
  - 14.34.140 Elevation and floodproofing certification required.
  - 14.34.150 General standards for special flood hazard areas.
  - 14.34.160 Specific standards for construction in special flood hazard areas.
  - 14.34.170 Standards for construction in shallow flooding areas (AO Zones).
  - 14.34.180 Standards for construction in special flood risk zones.
  - 14.34.190 Standards for development activities in floodways.
  - 14.34.200 Encroachment standards for development activities in areas where no floodway is established.
  - 14.34.210 Standards for construction in coastal high hazard areas.
  - 14.34.220 Habitat protection standards.
  - 14.34.230 Critter pads.
- Appendix A Chapter 14.34 SCC Construction Specifications for Critter Pads (Livestock Flood Sanctuary Areas)

#### **14.34.005 Definitions.**

Refer to Chapter 14.04 SCC for definitions of terms used in this Chapter. (Ord. O20110008 (part): Ord. O20070002 (part))

#### **14.34.010 Statutory authorization.**

The Legislature of the State of Washington has in Chapter 36.70 RCW delegated the responsibility to local governmental units to adopt regulations designed to promote the public health, safety, and general welfare of its citizens. Therefore, the County of Skagit, State of Washington, does ordain the provisions set forth in this Chapter. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

#### **14.34.020 Findings of fact.**

(1) The special flood hazard areas of Skagit County are subject to periodic inundation, which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety and general welfare.

(2) These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazards, which increase flood heights and velocities, and when inadequately anchored, damage uses in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.030 Statement of purpose.**

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

- (1) To protect human life and health;
- (2) To minimize expenditure of public money and costly flood control projects;
- (3) To minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- (4) To minimize prolonged business interruption;
- (5) 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;
- (6) 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;
- (7) To ensure that potential buyers are notified that property is in an area of special flood hazard;
- (8) To ensure that those who occupy the areas of special flood hazard assume responsibility for their actions;
- (9) To retain the natural channel, shoreline, and floodplain creation processes and other natural floodplain functions that protect, create, and maintain habitat for threatened and endangered species;
- (10) To prevent or minimize loss of hydraulic, geomorphic, and ecological functions of floodplains and stream channels.

It is the purpose of this Chapter to protect the public health, safety and welfare in those areas subject to periodic inundation due to flooding, and to minimize losses due to flood conditions in the specific areas subject to this Chapter by utilizing the methods and provisions set forth herein. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.040 Methods of reducing flood losses.**

In order to accomplish its purpose, this Chapter and Chapters 14.26 and 14.32 SCC include methods and provisions for:

- (1) 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;
- (2) Requiring that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- (3) Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel floodwaters;
- (4) Controlling filling, grading, dredging, and other development which may increase flood damage; and
- (5) Preventing or regulating the construction of flood barriers which will unnaturally divert floodwaters or which may increase flood hazards in other areas. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.050 Basis for establishing areas of special flood hazard.**

- (1) The areas of special flood hazard identified by the Federal Insurance Administration in a scientific and technical engineering report entitled "Flood Insurance Study for the Unincorporated Areas of Skagit County Washington," dated January 3, 1985, with accompanying flood insurance rate and floodway maps and subsequent

revisions, is hereby adopted by reference and declared to be a part of this Chapter. The Flood Insurance Study is on file with Skagit County Planning and Development Services.

(2) All new hydrologic and hydraulic flood studies conducted pursuant to this Section shall consider future conditions and the cumulative effects from anticipated future land use changes in accordance with Regional Guidance for Hydrologic and Hydraulic Studies in Support of the Model Ordinance for Floodplain Management under the National Flood Insurance Program and the Endangered Species Act, FEMA Region X, 2010. If there is an existing study that meets the rest of this Chapter's criteria, it may be used, even if it does not account for future conditions. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.055 Protected review area.**

The protected review area is comprised of, and shall be the greater of, those lands that lie within the boundaries of the floodway, the riparian habitat zone (RHZ), and the channel migration area (CMA). The riparian habitat zone and channel migration area are defined as follows:

(1) The "riparian habitat zone" includes streams, natural watercourses and adjacent land areas within the special flood hazard area (SFHA), but not artificial watercourses. The width of the RHZ shall be 250 feet from all waters of the State (as defined under WAC 222-16-030) within the SFHA.

(2) The "channel migration area (CMA)" shall be the channel migration zone plus 50 feet, where such migration zones have been delineated on a map or maps that have been adopted by Skagit County for regulatory purposes. When such maps become adopted, they shall be incorporated as a part of this Chapter and shall be used in accordance with this Section.

(a) Exception. Maintained levees subject to annual Corps of Engineers inspections shall be deemed to be the boundaries of the channel migration area. (Ord. O20110008 (part))

**14.34.060 Compliance.**

Any construction, location, extension, conversion, or alteration of a structure or land identified in a special flood hazard area shall fully comply within the requirements of this Chapter, Chapter 86.16 RCW, and Chapter 173-158 WAC. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.070 Abrogation and greater restrictions.**

This Chapter is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this Chapter and another chapter, ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.080 Interpretation.**

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

(1) Considered as minimum requirements;

(2) Liberally construed in favor of the governing body; and

(3) Deemed neither to limit nor repeal any other powers granted under State statutes. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.090 Warning and disclaimer of liability.**

The degree of flood protection required by this Chapter 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 manmade or natural causes. This Chapter 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 Chapter shall not create liability on the part of Skagit County, any officer or employee thereof, or the Federal Insurance Administration, for any flood damages that result from reliance on this Chapter or any administrative decision lawfully made thereunder. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.100 Floodplain development permits.**

A floodplain development permit, processed per Chapter 14.06 SCC, shall be obtained prior to construction or development on any property within a special flood hazard area as established in SCC 14.34.050. The permit is required for all structures and development activities as defined in Chapter 14.04 SCC, as well as those activities listed in Subsection (1) of this Section that may or may not otherwise require a development permit.

(1) Activities.

- (a) Septic tanks and drain fields.
- (b) Dumping or storage of hazardous waste.
- (c) Utility and road maintenance work not exempted pursuant to Subsection (2) of this Section.

(2) Exemptions. The following activities are exempt from the requirement to obtain a floodplain development permit.

- (a) Routine maintenance of landscaping that does not involve grading, excavation, or filling.
- (b) Removal of noxious weeds and hazard trees and replacement of non-native vegetation with native vegetation, provided the applicant complies with Chapter 14.24 SCC, Critical Areas Ordinance.
- (c) Normal maintenance of structures, such as re-roofing and replacing siding, provided such work does not require a building permit and does not qualify as a substantial improvement.

Normal maintenance of utilities (as utilities are defined in Chapter 14.04 SCC) and facilities, such as replacing downed power lines and repair or replacement of underground facilities; provided, that all native vegetation disturbed by the maintenance activity is restored; and provided further, that this exemption does not apply to new construction or to an expansion of utility facilities.

- (d) Normal street and road maintenance, including filling potholes, repaving, and installing signs and traffic signals, but does not include expansion of gravel or paved areas.
- (e) Normal maintenance of a levee or other flood control facility prescribed in the operations and maintenance plan for the levee or flood control facility.
- (f) Planting, harvesting, livestock management, and other normal farm or agricultural practices and activities, other than structures and filling for structural support; provided, that compliance with Chapter 14.24 SCC, Critical Areas Ordinance, is met.
- (g) The lawful operation and maintenance of public and private diking and drainage systems which protect life and property along the Skagit and Samish Rivers and tidal estuaries in Skagit County. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.110 Applications.**

Applications for permits shall be made on forms provided by the Administrative Official. As a minimum, the following information shall be provided by the applicant at the time of submittal:

- (1) Vicinity map.
- (2) Description of the project.
- (3) Two copies of the site plans drawn to scale that demonstrate the location and dimensions of the property, existing or proposed structures, fill and/or excavations, storage of material, drainage facilities, suspected critical areas per Chapter 14.24 SCC, and private or public utilities including sewage. The site plan shall also include the following information:
  - (a) The elevations and boundaries of the 10-, 50-, and 100-year floods, where such information is available.

- (b) The boundaries of both the SFHA as defined in SCC 14.34.050, and the protected review area as defined in SCC 14.34.055, where applicable.
- (c) Areas of compensatory storage per SCC 14.34.150(4), where applicable.
- (4) Floodproofing verification when required per SCC 14.34.140.
- (5) Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.
- (6) Where a permit is required for the repair, reconstruction or addition to any repetitive loss structure, as defined in Chapter 14.04 SCC (Definitions), such structure shall be required to meet the provisions of SCC 14.34.140, 14.34.160(1) and (3), and 14.34.170. Value for the structure shall be demonstrated by the current tax assessed value or by private appraisal at the expense of the applicant. Construction costs shall be demonstrated by a properly prepared construction bid from a currently licensed contractor or the valuation used by the Administrative Official for determining building permit fees.
- (7) Habitat impact assessment checklist or, if within the protected review area, a fish and wildlife habitat conservation area site assessment prepared consistent with SCC 14.34.220(1) and 14.24.520.
- (8) Notice on title pursuant to SCC 14.34.150(5).
- (9) The Administrative Official may require additional information when deemed necessary to determine the degree of flood protection required.
- (10) Permit fees shall be paid at the time application is submitted as prescribed in Planning and Development Services Department's adopted fee schedule. The Skagit County Board of County Commissioners may waive, by resolution, all permit fees for the repair of flood damages incurred during a local, State or Federally declared disaster. To be eligible for a fee waiver, the permit applicant shall provide access to the structure for the purposes of damage assessment by County personnel under the direction of the Administrative Official; or provide damage assessment reports prepared by the American Red Cross, FEMA, SBA, or a licensed insurance adjuster. The permit fee waiver applies only to that construction or repair that is necessary for restoration to pre-flood conditions. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.120 Administrative Official—Duties.**

- (1) Duties of the Administrative Official or designee shall include but not be limited to:
  - (a) Reviewing all development permits to determine that the permit requirements of this Chapter have been satisfied;
  - (b) Reviewing 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) Reviewing all development permits to determine if the proposed development is located in the floodway and, if located in the floodway, assuring that the encroachment provisions of SCC 14.34.190(1) are met;
  - (d) Maintain for public inspection all records pertaining to the provisions of this Chapter;
  - (e) Submit reports as required for the National Flood Insurance Program.
- (2) Use of Other Base Flood Data.
  - (a) When base flood elevation data has not been provided in accordance with SCC 14.34.050, the Administrative Official or designee 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 SCC 14.34.160, 14.34.170, 14.34.180 and 14.34.190.

- (3) Information to Be Obtained and Maintained. The Administrative Official shall obtain and maintain for public inspection:
- (a) Elevation certificates per SCC 14.34.140;
  - (b) Floodproofing certificates per SCC 14.34.140;
  - (c) Professional engineer's or architect's certification of compliance to design standards when required by this Chapter;
  - (d) All records pertaining to the provisions of this Chapter.
- (4) Alteration of Watercourses. The Administrative Official or designee shall:
- (a) Notify adjacent communities and the Department of Ecology prior to any alteration or relocation of a watercourse when proposed and submit evidence of such notification to the Federal Insurance Administration;
  - (b) Require that maintenance be provided within the altered or relocated portion of said watercourse so that the flood carrying capacity is not diminished.
- (5) Interpretation of FIRM Boundaries.
- (a) The Administrative Official or designee shall make interpretations where needed, as to approximate field 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 SCC 14.34.130. (Ord. O20110008 (part); Ord. O20070002 (part); Ord. 17938 Atch. F (part), 2000)

**14.34.130 Variances and appeals.**

- (1) Appeals.
- (a) When it is alleged there is an error in any requirement, decision, or determination made by the Administrative Official in the enforcement or administration of this Chapter, those aggrieved, or any citizen, may appeal such decision as provided in Chapter 14.06 SCC (Permit Procedures).
- (2) Variances.
- (a) Requests for variances from the provisions of this Chapter shall be considered pursuant to Chapter 14.10 SCC (Variances).
  - (b) Limitations. Variances shall be limited solely to the consideration of:
    - (i) Elevation requirements for first floor construction;
    - (ii) Elevation requirements for floodproofing; and
    - (iii) The type and extent of required floodproofing.
  - (c) A granting of any variance shall not result in:
    - (i) Increased flood heights;
    - (ii) Additional threats to public safety;
    - (iii) Extraordinary public expense;
    - (iv) Creation of nuisances;
    - (v) Fraud on or victimization of the public;

- (vi) Conflicts with other existing local laws or ordinances;
  - (vii) Adverse effects to species protected under the Endangered Species Act.
- (d) Notification. All decisions to grant a variance pursuant to this Chapter shall contain notification to the applicant that:
- (i) The issuance of a variance may result in increased premium rates for flood insurance.
  - (ii) Construction below base flood elevation increases risks to life and property. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.140 Elevation and floodproofing certification required.**

Where new construction or substantial improvements of any residential, commercial, industrial or other nonresidential use structure is located in an area where base flood elevation data has been provided, the following provisions apply:

- (1) Responsibility. The proponent of a project shall provide required certification data to the Administrative Official. All elevation and floodproofing data specified must be certified by a professional land surveyor where the project is located within A1-A10, A12, A14, A16, A18, A21-A22, and all V zones.
- (2) Form. Elevation or floodproofing certificates shall be on forms as required by FEMA. Forms shall be available from the Administrative Official.
- (3) Minimum Information.
  - (a) Actual elevation of the lowest floor (including basement).
  - (b) Actual elevation to which the building has been floodproofed.
- (4) Alternate Methods. Where an alternate method of floodproofing nonresidential use structures is proposed, it shall be certified and demonstrated that flood damages will not occur.
- (5) Agricultural and Utility Buildings. Agricultural and utility buildings classified as U occupancies under the provisions of the currently adopted Building Code and constructed in accordance with the wet floodproofing standards of SCC 14.34.160(4) shall not require elevation certificates. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000)

**14.34.150 General standards for special flood hazard areas.**

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

- (1) Siting of Structures. If a lot has a buildable site out of the SFHA, all new structures must be located in that area. If the lot is fully within the SFHA, structures must be located to have the least impact on habitat as possible by locating structures as far from the water body as possible or placing the structures on the highest ground on the lot. All new structures shall be set back from the protected review area a minimum of 15 feet, unless the applicant can demonstrate that the structure is not likely to adversely affect species protected under the Endangered Species Act, as demonstrated through the habitat impact assessment process set forth in SCC 14.34.220.
- (2) Stormwater. Construction in the SFHA shall incorporate low impact development techniques where technically feasible to minimize or avoid stormwater effects, such as those described in the Technical Guidance Manual for Puget Sound.
- (3) Impervious Surfaces. Creation of new impervious surfaces shall not exceed 10 percent of the surface area of the portion of the lot in the SFHA unless it is demonstrated that there will be no net increase in the rate and volume of stormwater surface runoff that will leave the site or that the impact is mitigated.
- (4) Floodplain Storage. Any loss of floodplain storage shall be avoided, rectified or compensated for within the SFHA.

- (a) Exception: Areas located landward of maintained levees subject to annual Corps of Engineers inspections, and not hydraulically connected to the source of flooding, need not provide compensatory storage.
- (5) Notice on Title. The applicant for a floodplain development permit shall record on the title to the property, on a form approved by the Administrative Official, a notice that a portion of the property is in the SFHA. A final recorded land division pursuant to Chapter 14.18 SCC shall include a notice that a portion of the property is in the SFHA.
- (6) Anchoring.
- (a) All new construction and substantial improvements shall be anchored to prevent flotation, collapse or lateral movement of the structure.
- (b) All manufactured homes must be placed on a permanent foundation and be anchored to prevent flotation, collapse or lateral movement, and shall be installed to minimize flood damage. Independent footings supporting manufactured homes shall be placed a minimum of 12 inches below pre-development grade before any fill is installed. Fill shall be protected from erosion.
- (c) All propane (LPG) and home heating oil tanks located above-ground shall be adequately supported and anchored to the ground in such a way that will prevent collapse, overturning, displacement or flotation resulting from floodwaters or waterborne debris.
- (7) Recreational Vehicles.
- (a) Recreational vehicles shall not be used as permanent dwelling units.
- (b) When located in special flood hazard areas designated as A, A1-A10, A12, A14, A16, A18, A21-A22, V1, V4, AO and AH, the vehicle shall:
- (i) Be on site for fewer than 180 consecutive days; or
- (ii) Be fully licensed and ready for highway use without the requirement for special highway permits, be on its wheels or jacking system, be attached to the site only by quick disconnect type utilities and security devices, and have no permanently attached additions.
- (8) Construction Materials and Methods.
- (a) Where construction occurs below the BFE, all new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage including, but not limited to, studs and wall plates, wall sheathing, insulation, interior wall finishes, exterior wall finishes or siding, etc.
- (b) All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.
- (c) Electrical, heating, ventilation, plumbing, and air conditioning equipment and other service facilities shall be designed and/or otherwise elevated to a level of 1 foot above base flood elevation or located so as to prevent water from entering or accumulating within the components during conditions of flooding. Ducts that serve mechanical equipment shall be elevated and located so that the entire duct is at least 1 foot above the base flood elevation or located so as to prevent water from entering or accumulating within the ducts during conditions of flooding.
- (d) Buildings utilizing crawl space construction, where any portion of the crawl space is below the grade on all sides, shall meet the following requirements as excerpted from FEMA Technical Bulletin 11-01, which is hereby adopted by reference:
- (i) Crawl space construction is not permitted in V zones.

- (ii) Crawl space construction is not permitted in zones A0 and A1-A30 where velocities exceed 5 feet per second, unless it can be shown through engineering analysis that the structural components will resist flotation, collapse and lateral movement from hydrodynamic and hydrostatic loads, including the effects of buoyancy.
  - (iii) The interior grade of a crawl space must not be more than 2 feet below the lowest adjacent exterior grade.
  - (iv) The height of the crawl space, measured from the interior grade of the crawl space to the top of the foundation wall, must not exceed 4 feet at any point. The height measured from the crawl space grade to the top of the next higher floor shall not exceed 5 feet at any point.
  - (v) There must be an adequate drainage system that removes floodwaters from the interior area of the crawl space, within a reasonable time, after a flood event.
- (9) Utilities.
- (a) All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems;
  - (b) New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of floodwaters into the systems and discharge from the systems into floodwaters;
  - (c) On-site disposal systems shall be located to avoid impairment to them or contamination from them during flooding.
- (10) Subdivision Proposals.
- (a) All subdivision proposals shall be consistent with the need to minimize flood damage;
  - (b) All subdivision proposals shall have public utilities and facilities such as sewer, gas, electrical, and water systems located and constructed to minimize flood damage;
  - (c) All subdivision proposals shall have adequate drainage provided to reduce exposure to flood damage; and
  - (d) Where base flood elevation data has not been provided or is not available from another authoritative source, it shall be provided by the proponent, generated for subdivision proposals and other proposed developments which contain at least 50 lots or 5 acres, whichever is less.
  - (e) The final recorded land division pursuant to Chapter 14.18 SCC shall include a notice that part of the property is in the SFHA.
- (11) Review of Building Permits.
- (a) Where flood elevation data is not available, 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 2 feet above grade in these zones may result in higher insurance rates. (Ord. O20120005; Ord. O20110008 (part); Ord. O20070002 (part); Ord. O20020010 (part); Ord. O20020003 (part); Ord. 17938 Atch. F (part), 2000. Formerly 14.34.160)

**14.34.160 Specific standards for construction in special flood hazard areas.**

In all areas of special flood hazard where base flood elevation data has been provided as set forth in SCC 14.34.050 or 14.34.120(2), the following provisions are required in addition to the general regulations per SCC 14.34.150:

- (1) Residential Construction.

(a) New construction and substantial improvement of any residential structure shall have the finished floor elevation of the lowest floor elevated 1 foot or more above the base flood elevation. Fully enclosed areas below the lowest floor that are subject to flooding are prohibited from occupancy and 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 licensed in the State of Washington or must meet or exceed the following minimum criteria:

- (i) A minimum of 2 openings having a total net area of not less than 1 square inch for every square foot of enclosed area subject to flooding shall be provided.
- (ii) The bottom of all openings shall be no higher than 1 foot above finished grade.
- (iii) Openings may be equipped with screens, louvers, or other coverings or devices; provided, that they permit the automatic entry and exit of floodwaters.

(2) All new or substantially improved manufactured homes to be placed or substantially improved within flood hazard zones where base flood elevation data is provided shall be elevated on a permanent foundation such that finished floor elevation of the lowest floor of the manufactured home is 1 foot or more above the base flood elevation and be securely anchored to an adequately anchored foundation system in accordance with the provisions of SCC 14.34.150(6)(b).

(3) Nonresidential Construction.

(a) New construction and substantial improvements of any commercial, industrial or other nonresidential use structure shall either have the finished floor elevation of the lowest floor elevated 1 foot or more above the base flood elevation or, together with attendant utility and sanitary facilities, shall:

- (i) Be floodproofed so that below 1 foot above the base flood elevation the structure is watertight with walls substantially impermeable to the passage of water.
- (ii) Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy.
- (iii) Be certified by a registered professional engineer or architect licensed in the State of Washington 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 SCC 14.34.140.
- (iv) Nonresidential use structures that are elevated, not floodproofed, must meet the standards for space below the lowest floor as set forth in Subsection (1) of this Section.
- (v) Applicants floodproofing nonresidential use buildings shall be notified that flood insurance premiums will be based on rates that are 1 foot below the floodproofed level (e.g., a building constructed to the base flood level will be rated as 1 foot below that level).

(4) Wet Floodproofing Standards for Agricultural and Utility Use Structures.

(a) New construction or substantial improvements of any agricultural building, as defined in Chapter 14.04 SCC (Definitions), or utility use structure, when not meeting floodproofing or elevation requirements of Subsection (3) of this Section shall:

- (i) Not be used for human habitation.
- (ii) Be anchored to prevent flotation, collapse or lateral movement.
- (iii) Use flood-resistant materials below the BFE.
- (iv) Be limited to parking and limited storage.

- (v) Have a low potential for structural damage from inundation, scouring, velocities or debris impact.
- (vi) Be designed and oriented to automatically allow the free passage of floodwater through the structure in a manner affording minimum damage to the structure or its contents.
- (vii) All electrical and mechanical equipment permanently affixed to the structure is elevated 1 foot above base flood elevation; or be made waterproof by accepted systems to the appropriate code.
- (viii) When valuation of the structure exceeds \$50,000, the provisions in Subsections (4)(a)(i), (ii) and (iii) of this Section shall be verified by a currently registered professional engineer or architect licensed in the State of Washington. The valuation used shall be that currently used by the Administrative Official for determining building permit fees.

(5) Critical facilities should be afforded additional flood protection due to their nature. Construction of new critical facilities should be, to the extent possible, located outside the limits of the 100-year floodplain as identified on the County's FIRM. Construction of new critical facilities may be permissible within the 100-year frequency floodplain if no feasible alternative site is available. When allowed, critical facilities constructed within the 100-year frequency floodplain shall have the lowest floor elevated to 3 or more feet above the level of the 100-year frequency flood. Floodproofing and sealing measures shall 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 100-year frequency flood shall be provided to all critical facilities to the extent possible. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000. Formerly 14.34.170)

**14.34.170 Standards for construction in shallow flooding areas (AO Zones).**

Shallow flooding zones (AO Zones) appear on the Flood Insurance Rate Maps with flood depth designations from 1 to 3 feet above ground and in some areas with water velocities indicated. In these areas, the following provisions apply:

- (1) New construction and substantial improvements of residential structures within AO Zones shall have the lowest floor elevated above the highest adjacent grade of the building site, and at least 1 foot or more above the flood depth number specified on the Flood Insurance Rate Map (FIRM).
- (2) Where velocities of 5 feet per second or greater are listed in an AO Zone, new structures within 500 feet of the outside toe of any dike shall be constructed to the following standards in addition to those listed in Subsection (1) of this Section:
  - (a) All buildings or structures shall be elevated so that the lowest horizontal supporting members are located no lower than 1 foot or more above the base flood elevation level. All space below such supporting members shall remain open so as not to impede the flow of water. Exception: breakaway walls provided for in Subsection (2)(e) of this Section may be used.
  - (b) All buildings or structures shall be securely anchored on pilings or columns.
  - (c) Pilings or columns used as structural support shall be designed and anchored so as to withstand all applied loads of the base flood flow.
  - (d) Structural fill shall be allowed below the level of the existing grade only and shall be designed by and installed under the direction of a registered professional engineer or architect licensed in the State of Washington.
  - (e) Breakaway walls shall be allowed below the base flood elevation.
  - (f) Compliance with the provisions of Subsections (2)(c) and (e) of this Section shall be certified by a registered professional engineer or architect.
- (3) Where velocities of 5 feet per second or greater are listed in an AO Zone, new structures less than 500 feet from the outside toe of any dike shall not be constructed with a crawl space below the BFE unless it can be shown

through engineering analysis that the structural components are capable of resisting the effects of buoyancy as well as hydrostatic and hydrodynamic loads.

- (4) New construction and substantial improvements of nonresidential (commercial and industrial) structures within AO Zones shall:
  - (a) Have the lowest floor elevated above the highest adjacent grade of the building site, and at least 1 foot or more above the depth number specified on the FIRM; or
  - (b) Together with attendant utility and sanitary facilities be completely floodproofed to 1 foot or more above the base flood elevation; any space below that level is watertight with walls substantially impermeable to the passage of water; structural components shall have the capability of resisting hydrostatic and hydrodynamic loads and the effects of buoyancy. If this method is used, compliance shall be certified by a registered professional engineer or architect.
- (5) If located in an AO Zone with water velocities of 5 feet per second or greater, or within 200 feet from the outside toe of a dike, nonresidential buildings shall be constructed to the standards of Subsections (2)(a) through (f) of this Section.
- (6) Require adequate drainage paths around structures on slopes to guide floodwater around and away from proposed structures. (Ord. O20110008 (part); Ord. O20070002 (part); Ord. 17938 Attch. F (part), 2000. Formerly 14.34.180)

**14.34.180 Standards for construction in special flood risk zones.**

The following construction standards are required in special flood risk zones as defined in Chapter 14.04 SCC:

- (1) New construction and substantial improvements of residential and nonresidential structures within special flood risk zones shall have the lowest horizontal supporting member elevated 1 foot or more above the base flood elevation and shall be constructed according to the standards provided in SCC 14.34.170(2)(a) through (f).
- (2) Regardless of method of construction, critical facilities are prohibited in the special flood risk zones.
- (3) There shall be no fill or new construction within the channel of Gages Slough. (Ord. O20110008 (part); Ord. O20070002 (part); Ord. 17938 Attch. F (part), 2000. Formerly 14.34.190)

**14.34.190 Standards for development activities in floodways.**

Located within areas of special flood hazard established in SCC 14.34.050 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of floodwater that carries debris, potential projectiles, and erosion potential, the following provisions apply:

- (1) Prohibit encroachments including fill, new construction, substantial improvements, and other development, unless certification by a registered professional engineer licensed in the State of Washington is provided demonstrating, through hydrologic and hydraulic analyses performed in accordance with standard engineering practice as well as the "Procedures for No-Rise Certification" as published by FEMA, that the proposed encroachment would not result in any increase in flood levels during the occurrence of the base flood discharge. Additionally, Skagit County reserves the right to have this analysis reviewed by a qualified third party to be selected by the County. The cost of such review, if any, shall be the responsibility of the applicant.
- (2) Prohibit construction or reconstruction, repair or replacement of residential structures except for:
  - (a) Repairs, reconstruction, or improvements to a structure which do not increase the ground floor area provided the cost of such reconstruction, repair, or improvement shall be calculated cumulatively with any other activity occurring during the previous 10 years and the total of all improvements or repairs shall not exceed 50% of the market value of the structure as established in the first year of the 10-year period.
  - (b) Repair of a structure subsequent to sustaining damage of any origin when the cost of restoring the structure to its pre-damaged condition as calculated cumulatively with any other activity occurring during the

previous 10 years and the total of all improvements or repairs shall not exceed 50% of the market value of the structure as established in the first year of the 10-year period and prior to the damage.

(i) Work done on structures to comply with existing health, sanitary, or safety codes when determined by the Administrative Official, or to structures identified as historic places, may be excluded in the 50% determination.

(c) Repairs, reconstruction, replacement, or improvements to existing farmhouse structures located in designated floodways and which are located on lands designated as agricultural lands of long-term commercial significance under RCW 36.70A.170 shall be permitted subject to the following. For the purposes of this Section, "farmhouse" means a single-family dwelling located on a farm site where resulting agricultural products are not produced for the primary consumption or use by the occupants and the farm owner.

(i) The new farmhouse is a replacement for an existing farmhouse on the same farm site;

(ii) There is no potential building site for a replacement farmhouse on the same farm outside the designated floodway;

(iii) Repairs, reconstruction, or improvements for a farmhouse shall not increase the total square footage of encroachment of the existing farmhouse;

(iv) A replacement farmhouse shall not exceed the total square footage of the encroachment of the structure it is replacing;

(v) A farmhouse being replaced shall be removed, in its entirety, including foundation, from the floodway within 90 days after occupancy of a new farmhouse;

(vi) For substantial improvements, and replacement farmhouses, the elevation of the lowest floor of the improvement and farmhouse respectively, including basement, is 1 foot higher than the base flood elevation;

(vii) New and replacement water supply systems are designed to eliminate or minimize infiltration of floodwaters into the system;

(viii) New and replacement sanitary sewerage systems are designed and located to eliminate or minimize infiltration of floodwater into the system and discharge from the system into the floodwaters; and

(ix) All other utilities and connections to public utilities are designed, constructed, and located to eliminate or minimize flood damage.

(3) For all other residential structures located in a designated floodway and damaged by flooding or flood-related erosion, the Department of Ecology is authorized to assess the risk of harm to life and property posed by the specific conditions of the floodway and, based upon scientific analysis of depth, velocity, and flood-related erosion, may exercise best professional judgment in recommending to the Skagit County Building Official, repair, replacement, or relocation of such damaged structures. The effect of the Department's recommendation to allow repair or replacement of a flood-damaged residence within the designated floodway is a waiver of the floodway prohibition.

(4) Recreational vehicles placed in the floodway shall meet the following requirements:

(a) Be fully licensed and ready for highway use without the requirement for special highway permits, be towable by a regular duty truck without the requirement for special licenses, be on its wheels or jacking system, and have no permanently attached additions.

(b) Shall not be placed in the floodway from November through April of any calendar year.

- (i) Exception. Recreational vehicles are allowed to be placed for weekend and holiday use for a period not to exceed 14 days.

(5) All new construction and substantial improvements shall comply with all applicable flood hazard reduction provisions of SCC 14.34.150 through 14.34.200. (Ord. O20110008 (part); Ord. O20090011 Attch. 2 (part); Ord. O20070002 (part); Ord. O20020010 (part); Ord. O20020003 (part); Ord. 17938 Attch. F (part), 2000. Formerly 14.34.200)

**14.34.200 Encroachment standards for development activities in areas where no floodway is established.**

In areas where a regulatory floodway has not been designated, the cumulative effect of any proposed development, where combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than 1 foot at any point. (Ord. O20110008 (part); Ord. O20070002 (part); Ord. O20020010 (part); Ord. O20020003 (part); Ord. 17938 Attch. F (part), 2000. Formerly 14.34.210)

**14.34.210 Standards for construction in coastal high hazard areas.**

Coastal high hazard areas (V Zones) are located within the areas of special flood hazard established in SCC 14.34.050. Coastal high hazard areas (V Zones) have special flood hazards associated with high velocity waters and tidal surges, and, therefore, the following provisions shall apply in these areas:

(1) All new construction and substantial improvements in Zones V1-V4 shall be elevated on pilings and columns so that:

- (a) The bottom of the lowest horizontal structural member of the lowest floor (excluding the pilings or columns) is elevated 1 foot or more above the base flood level; and

- (b) The pile or column foundation and structure attached thereto is anchored to resist flotation, collapse and lateral movement due to the effects of wind and water loads acting simultaneously on all building components. Wind and water loading values shall each have a 1% chance of being equaled or exceeded in any given year (100-year mean recurrence interval); a registered professional engineer or architect shall develop or review the structural design in accordance with the most recent edition of the Coastal Construction Manual as published by FEMA, specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for meeting the provisions of Subsection (1)(a) of this Section. Skagit County reserves the right to have this analysis reviewed by a qualified third party to be selected by the County. The cost of such review, if any, shall be the responsibility of the applicant.

(2) Obtain the elevation in relation to NGVD '29 of the bottom of the lowest horizontal structural member of the lowest floor of all new and substantially improved structures in Zones V1-V4 and whether or not such structures contain a basement. The local administrator shall maintain a record of all such information.

(3) All new construction shall be located landward of the reach of extreme high tide.

(4) Provide that all new construction and substantial improvements have the space below the lowest floor either free of obstruction or constructed with non-supporting breakaway walls, open wood lattice work, or insect screening intended to collapse under wind and water loads without causing collapse, displacement, or other structural damage to the elevated portion of the building or supporting foundation system. For the purpose of this Section, a breakaway wall shall have a design safe loading resistance of not less than 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading resistance of 20 pounds per square foot, either by design or when so required by local or State codes, may be permitted only if a registered professional engineer or architect licensed in the State of Washington certifies that the designs proposed meet the following conditions:

- (a) Breakaway wall collapse shall result from a water load less than that which would occur during the base flood; and

- (b) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement, or other structural damage due to the effects of wind and water loads acting simultaneously on all building components (structural and nonstructural). Maximum wind and water loading values to be used in this

determination shall each have a 1% chance of being equaled or exceeded in any given year (100-year mean recurrence interval).

- (5) If breakaway walls are utilized, such enclosed space shall be usable solely for parking of vehicles, building access, or storage. Such space shall not be used for human habitation.
- (6) Prohibit the use of fill for structural support of the building.
- (7) Prohibit manmade alterations to the natural landscape, which would increase potential flood damage. (Ord. O20110008 (part): Ord. O20070002 (part): Ord. 17938 Attch. F (part), 2000. Formerly 14.34.220)

**14.34.220 Habitat protection standards.**

(1) Habitat Impact Assessment. Unless exempted pursuant to Subsection (2) of this Section, a floodplain development permit application shall include an assessment of the impact of the project on water quality and aquatic and riparian habitat of salmon and orca species protected under the Endangered Species Act. The process for meeting this assessment requirement is as follows:

(a) If the proposed development is within the protected review area, as defined in SCC 14.34.055, a fish and wildlife habitat conservation area (FWHCA) site assessment will be required pursuant to SCC 14.24.520. If the proposed development is not within the protected review area, but within the SFHA, the applicant shall submit a SFHA habitat impact assessment checklist to determine whether a FWHCA site assessment pursuant to SCC 14.24.520 is required. This checklist will evaluate habitat functions and values present on-site and the potential impacts to these functions and values based on the project description. Department staff will determine whether a FWHCA site assessment is necessary based on review of a completed checklist.

(b) In lieu of a FWHCA site assessment or SFHA habitat impact assessment checklist pursuant to Subsection (1)(a) of this Section, the applicant may comply with the habitat impact assessment requirements of this Section by providing 1 of the following:

(i) A biological evaluation or assessment covering protected salmon and orca species that has been approved by the U.S. Fish and Wildlife Service or the National Marine Fisheries Service.

(ii) Documentation that the appropriate State or Federal agency has determined that the activity fits within a habitat conservation plan covering protected salmon and orca species approved pursuant to Section 10 of the Endangered Species Act (ESA).

(iii) Documentation that the appropriate State or Federal agency has determined that the activity fits within Section 4(d) of the ESA relating to protected salmon and orca species.

(2) Exemptions from Habitat Impact Assessments. The following activities are exempt from the requirement to provide a habitat impact assessment or habitat mitigation plan; however, an exemption from the assessment requirements of this Chapter does not exempt an applicant from complying with the provisions of Chapter 14.24 SCC, Critical Areas Ordinance.

(a) Repairs or remodeling of an existing structure; provided, that the repairs or remodeling are not a substantial improvement or a repair of substantial damage.

(b) Expansion of an existing structure that is no greater than 200 square feet or 10%, whichever is greater, beyond its existing footprint; provided, that the repairs or remodeling are not a substantial improvement or a repair of substantial damage. This measurement is counted cumulatively from the effective date of the ordinance codified in this Chapter.

(c) Activities with the sole purpose of creating, restoring or enhancing natural functions associated with floodplains, streams, lakes, estuaries, marine areas, habitat, and riparian areas that meet Federal and State standards, provided the activities do not include structures, grading, fill, or impervious surfaces.

(d) Development of open space and recreational facilities, such as parks and trails, that do not include structures, grading, fill, impervious surfaces or removal of more than 5% of the native vegetation on that portion of the property in the regulatory floodplain.

(3) Habitat Mitigation Plan. If the assessment conducted under Subsection (1) of this Section concludes that the project is expected to have an adverse effect on water quality and/or aquatic or riparian habitat or habitat functions associated with species protected under the Endangered Species Act, the applicant shall provide a plan to mitigate those impacts, in accordance with Chapter 14.24 SCC, Critical Areas Ordinance.

(4) Final approval of the project or occupancy approval shall not be provided until all work identified in the evaluation, assessment, or mitigation plan has been completed and implemented or the applicant has provided the necessary assurance that any unfinished portions of the project will be completed. (Ord. O20110008 (part))

#### **14.34.230 Critter pads.**

For the purposes of providing livestock flood sanctuary areas, critter pads shall be permitted in any special flood hazard area except when located within the regulatory floodway. Construction of such pads shall be as specified in Appendix A of this Chapter. (Ord. O20110008 (part); Ord. O20070002 (part); Ord. 17938 Attch. F (part), 2000. Formerly 14.34.220)

### **APPENDIX A**

#### **Chapter 14.34 SCC Construction Specifications for Critter Pads (Livestock Flood Sanctuary Areas)**

##### **SITE SELECTION**

(1) Property shall be located in the 100-year floodplain and conveniently located within an established farmland that contains domestic livestock.

(2) Portions of the property used as livestock pasture must be located in the 100-year floodplain as identified on the official Flood Insurance Rate Map (FIRM) for Skagit County. Construction is not permitted in the regulatory floodway.

(3) The cumulative impacts of all proposed critter pads in a flood basin are exempt from compliance with the encroachment standards of SCC 14.34.200.

(4) No portion of the pad shall be allowed within 100 feet of the top of a riverbank or within a wetland area as defined by Chapter 14.24 SCC. Less than a 100-foot setback may be allowed if mitigation is performed which provides an equivalent or greater vegetative buffer along the river or stream corridor.

(5) The pad shall be located on the property away from areas of high velocity flows so as to minimize impacts to the site, upstream and downstream properties, and natural resources.

(6) No pad shall be located nearer than half the height of the pad ( $H/2$ ) to any property line. No portion of the pad shall abut any property line. Setback distances from all property lines shall be measured at right angles from the property line to the toe of the pad.

##### **SITE PREPARATION**

(1) Erosion control shall be established around the perimeter of the work site per Chapter 14.32 SCC.

(2) The foundation area of the pad shall be stripped of existing surface vegetation to a minimum depth of 4 inches and stockpiled on site. If this material is to be stockpiled for more than 24 hours, it shall be covered or stabilized using erosion control methods. This material shall be replaced on the surface of the pad when revegetated and reseeded.

##### **SOIL MATERIAL FOR PAD**

(1) Soil may be extracted from nonsensitive areas on site; it shall not be taken from wetlands or other sensitive areas other than frequently flooded areas.

- (2) Detrimental amounts of organic material shall not be permitted in fills. Imported fill material shall be obtained from an approved or permitted site.

#### **PLACEMENT OF FILL**

- (1) The maximum soil layer thickness (lift) prior to compaction shall not exceed 2 feet.
- (2) Compaction may be performed by the routing back and forth of construction equipment.

#### **PAD SURFACING**

- (1) Disturbed areas of soil on the upper surface of the pad shall be reseeded with a mixture of perennial ryegrass and creeping fescue or other plant material.
- (2) Side slopes shall be no steeper than 2 horizontal to 1 vertical (2:1).
- (3) Side slopes shall be protected by placing erosion control fabric, reseeded, and planting native woody vegetation in accordance with biotechnical bank stabilization techniques described in the construction specifications.
- (4) Newly planted vegetation used for side slope stabilization may require temporary fencing along the length of the toe of the slope until such time as the vegetation has established itself.
- (5) The surface of the pad shall be compacted soil and low grasses. A straw covering shall be spread over the surface prior to intended use. The straw and manure collected on the surface during the emergency use shall be removed and treated as animal waste following the flood event.
- (6) Ramp slopes shall be no steeper than 8 horizontal to 1 vertical (8:1).
- (7) The ramp may be constructed of concrete, wood or earth material. The upper surface of the pad area shall be enclosed by a fence.

#### **SIZE LIMITATIONS**

- (1) The maximum size of the pad shall not exceed 50 square feet per animal unit (1,000 lbs.) plus the area created by adding 14 feet of width along 2 sides to be used for farm vehicle access.
- (2) The width of the pad as measured perpendicular to the flooding source (river, stream or lake) shall not exceed 15% of the total floodplain width of the property.

#### **AGREEMENTS**

- (1) Any application for the construction of a critter pad shall include written legal agreements between Skagit County and the applicant that provide for the following:
  - (a) Construction and maintenance of the pad shall be performed according to best management practices.
  - (b) Applicants accept the flood impacts and new delineation of floodway/floodplain that may occur as a result of construction of such pad.
  - (c) The construction of buildings or structures on the pad for use other than livestock shelter is prohibited. Livestock shelters shall be permitted only through the Planning and Development Services permit process.
- (2) When agricultural land containing critter pads is to be converted to any non-AG use, the County shall require that all critter pads be removed. As a condition of a land use conversion from agriculture use, all critter pad material shall be removed and the pad area restored to its previous ground level. An inspection and sign-off by a County Building Official shall be required before any building permits are issued for the portion of the property that formerly contained the critter pad.

#### **PERMIT APPLICATION**

In addition to the Planning and Development Services special flood hazard area development permit application, any applicant proposing the construction of a critter pad shall also provide the following information:

- (1) Site plan indicating the location of property lines, total square foot area of existing buildings, total square foot area of land within property lines, proposed square foot area of the pad, proposed location of the pad in reference to property lines, identified sensitive areas (critical areas) and any ground elevation reference marks.
- (2) Description or type of farming activity. Number and type of livestock.
- (3) Identify amount, type and source of fill material to be used and whether it is obtained on or off site.
- (4) Construction schedule and methods including erosion control methods to be used during construction.
- (5) Completed design specifications per this Chapter.
- (6) Any signed legal agreements required per this Chapter.

### **APPROVAL TO START CONSTRUCTION**

- (1) The construction of any critter pad shall not commence until such time as the Administrative Official finds that the work described in an application for a permit and the plans, specifications and other data filed therewith conform to the requirements of this Chapter and other pertinent laws and ordinances and that the fees required for the permit have been paid.
- (2) The Administrative Official shall inspect construction for which a permit is issued. The person causing the work to be done shall notify the Administrative Official in writing or by telephone when such permitted work is ready for inspection. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection.

### **INSPECTIONS REQUIRED**

- (1) After removal of the topsoil and prior to fill material being placed.
- (2) During or after the placement of erosion control devices.
- (3) After final completion and prior to using.

### **DESIGN SPECIFICATIONS**

The following information is intended to assist the designer with meeting the dimensional requirements for the construction of a critter pad:

- (1) Height (h): Base flood elevation is considered minimum height. Recommended height is 1 foot above base flood elevation.
- (2) Net Area (An): The net area (An) is a product of the width perpendicular to flood flow (Wp) and the length parallel to the flood flow (Lp). The net area should be no greater than 50 square feet per animal unit (1,000 lbs.). An additional area no greater than 25% of the calculated area will be allowed in order to accommodate herd growth.
- (3) Gross Area (Ag): The gross area is the product of (Wp + 14') and (Lp + 14'). A strip no greater than 14 feet wide will be permitted along 1 length and 1 width in order to provide vehicle access.
- (4) Side Slopes (Z): Side slopes for fill should be 2:1 or greater.
- (5) Base Area (Ab): The base area is the product of the base width (Wb) and base length (Lb) or the total footprint of the pad at grade. This area should equal the sum of the gross area (Ag) plus the horizontal area of the side slopes and should not exceed 2% of the total area (At).

- (6) Floodplain width covered by pad (FWp): The width of floodplain covered by the pad should be less than 15% of the total floodplain width (FWt) of the property.
- (7) Ramp Length (Rl): The ramp length should not exceed 500 feet and should have a minimum slope of 8:1. If the ramp is constructed on fill, it should run parallel to flood flow. If the ramp is built using piling construction, it may be built either parallel or perpendicular to flow.
- (8) Ramp Width (RW): The width of the ramp should be no greater than 18 feet.
- (9) Total Area (At): The total area is the area that is occupied by all structures or improvements (including pad) on the entire property. The total area shall not exceed 5% of the area of the property.
- (10) Distance (D): The shortest distance from the base of the pad to an adjacent river, stream, lake or property line.

(Ord. O20110008 (part); Ord. O20070009 (part); Ord. O20070002 (part))