



# STEMILT-SQUILCHUCK COMMUNITY VISION



THE TRUST *for* PUBLIC LAND  
CONSERVING LAND FOR PEOPLE

**THE STEMILT  
PARTNERSHIP**

---

THE  
TRUST  
*for*  
PUBLIC  
LAND

---



*The Trust for Public Land conserves land for people to enjoy as parks, gardens, and other natural places, ensuring livable communities for generations to come.*



## THE STEMILT PARTNERSHIP



**CORE GIS LLC**  
[www.coregis.net](http://www.coregis.net)

September 2008

*Prepared by*

## The Trust for Public Land CORE GIS

*In Partnership with*

## The Stemilt Partnership Chelan County

Written by Kitty Rasmussen  
Report design and layout by CORE GIS  
Edited by Jim Moore, Word Jones  
Front cover photos by Darcy Keifel  
All interior photos by Darcy Keifel,  
except p. 10 by Paul Queneau; p. 12 by  
Rocky Mountain Elk Foundation; and  
p. 49 and 54 by Julianne Burts

For more information, contact:

Kitty Rasmussen, Program Manager  
Northwest and Rocky Mountain  
Regional Office  
1011 Western Avenue, Suite 605  
Seattle, WA 98104  
[kitty.rasmussen@tpl.org](mailto:kitty.rasmussen@tpl.org)  
(206) 274-2923

Mike Kaputa, Director  
Chelan County Natural Resources  
Department  
316 Washington Street, Suite 401  
Wenatchee, WA 98801  
[mike.kaputa@co.chelan.wa.us](mailto:mike.kaputa@co.chelan.wa.us)  
(509) 670-6935

To download a free copy, maps, or  
order a hard copy of this report, visit  
[www.tpl.org/stemilt](http://www.tpl.org/stemilt)

## ACKNOWLEDGMENTS

The key to the successful development of the Stemilt-Squilchuck Community Vision was and continues to be the ongoing dedication and commitment of the individuals who make up the Stemilt Partnership. Without a dedicated group of people willing to give their time and knowledge and share their vision for the future of the watershed, none of this would have been possible.

Ron Walter, Chelan County Commissioner from District 1, and the Chelan County Commission provided critical leadership to establish the Stemilt Partnership and commit county funds toward creating the community vision. The political support of Senator Linda Evans Parlette was also vital to secure funding from the Washington State Legislature to support the Partnership in working with Washington Department of Natural Resources and others to create a landscape strategy for the watershed. The Icicle Fund and Burning Foundation also provided significant financial support for the community visioning effort.

Organizations involved in the Stemilt Partnership include:

Apple Country Snowmobile Club	Squilchuck Water Users Association
Beehive Irrigation District	Stemilt Irrigation District
Chelan County	The Trust for Public Land
Chelan County Public Utility District	Three Lakes Maintenance Corporation
Chelan-Douglas Land Trust	U.S. Forest Service
Citizens and Growers of the Stemilt and Squilchuck Basins	Washington Department of Fish and Wildlife
Highline Ditch Company	Washington Department of Natural Resources
Lake Cortez Water Association	Washington State Parks
Lockwood-Canady Irrigation Company	Wenatchee Heights Reclamation District
Lower Stemilt Irrigation District	Wenatchee Sportsmen's Association
Malaga-Colockum Community Council	Wenatchee Valley Fly Fishers
Malaga Water District	WRIA 40A Watershed Planning Unit
Mission Ridge Ski and Snowboard Resort	
Rocky Mountain Elk Foundation	

Many individuals volunteered their expertise to technical subcommittees that met regularly throughout the visioning process and helped produce much of the technical information and mapping included in the report, including:

Gar Racus, Stemilt Irrigation District	Don Youkey, U.S. Forest Service
Greg Berdan, Wenatchee Heights Reclamation District	Everett Burts, Applecountry Snowmobile Club
Mark Oswood, North Central Washington Audubon Society	Don Bolstad, Wenatchee Valley Fly Fishers
Ron Fox, Washington Department of Fish and Wildlife	Lee Duncan, Chelan County Natural Resources
James Begley, U.S. Forest Service	Bill Sullivan, Aspect Consulting
Pete Lopushinsky, Washington Department of Fish and Wildlife	Dave Volsen, Washington Department of Fish and Wildlife
Matt Morrison, Washington State Parks	Norm Gutzwiler, Resident and Chelan PUD

Other individuals who specifically contributed recreation information include: Tony Gillin, Squilchuck resident; TJ Owen and Dan Kavet of the Wenatchee Valley Nordic Skiing Association; John Lemkuhl, recreational user; and Steve Johnston, Wenatchee Valley Velo Club.

It is also important to recognize Darcy Kiefel, of Darcy Kiefel Photography, who captured the beauty and people of the Stemilt-Squilchuck watershed on a whirlwind photo tour of the area. And, the ongoing guidance and coordination provided by Mike Kaputa, Chelan County Natural Resource Department Director, has been invaluable throughout the visioning process.



Agricultural lands in the Stemilt-Squilchuck watershed

## CONTENTS

<b>1. Executive Summary</b>	<b>i</b>
<i>Key Findings and Recommendations</i>	<i>iii</i>
<i>Next Steps</i>	<i>iv</i>
<b>2. Introduction to the Stemilt-Squilchuck Watershed</b>	<b>1</b>
<i>The Landscape</i>	<i>1</i>
<i>The Community</i>	<i>5</i>
<i>Major Issues and Opportunities</i>	<i>5</i>
<b>3. Crafting a Community Vision</b>	<b>7</b>
<i>The Community Visioning Process</i>	<i>8</i>
<b>4. Shared Vision and Goals for the Landscape</b>	<b>11</b>
<b>5. Landscape Inventory: Mapping Shared Goals</b>	<b>13</b>
<i>Goal 1: Protect Water Resources</i>	<i>13</i>
<i>Goal 2: Conserve Wildlife Resources</i>	<i>21</i>
<i>Goal 3: Maintain and Enhance Recreational Access</i>	<i>30</i>
<i>Mapping Agricultural Resources</i>	<i>34</i>
<i>Mapping Development Potential</i>	<i>37</i>
<b>6. Community Vision to Conceptual Plan</b>	<b>41</b>
<i>Guiding Principles and Values</i>	<i>41</i>
<i>Components of the Conceptual Plan</i>	<i>41</i>
<i>Final Conceptual Plan</i>	<i>47</i>

<b>7. Toward Implementation: Opportunities for Action, Collaboration, and Next Steps</b>	<b>49</b>	<b>Maps</b>	
<i>Major Opportunities</i>	49	Map 1.1 Stemilt-Squilchuck Watershed: Public Lands	ii
<i>Conservation Funding Opportunities</i>	51	Map 2.1 Stemilt-Squilchuck Watershed: Aerial Photo and Public Lands	2
<i>Next Steps for the Stemilt Partnership</i>	53	Map 2.2 Stemilt-Squilchuck Watershed: Public Lands	4
<b>8. Conclusion</b>	<b>55</b>	Map 5.1 Water Resources: Precipitation	15
<b>9. Appendices</b>	<b>57</b>	Map 5.2 Water Resources: Vegetation and Slope	16
<b>A. Stemilt Partnership Members</b>	<b>57</b>	Map 5.3 Water Resources: Crown Closure	17
<b>B. Community Survey and Workshop Results</b>	<b>58</b>	Map 5.4 Water Resources: Aspect	18
<b>C. Mapping Methodology</b>	<b>63</b>	Map 5.5 Water Resources: Final Snow Retention Model Results	19
<b>D. Additional Maps</b>	<b>71</b>	Map 5.6 Water Resources: Existing and Potential Water Storage Areas	20
<b>E. Stemilt-Squilchuck Conservation Finance Feasibility Study</b>	<b>73</b>	Map 5.7 Wildlife Resources: Summer Elk Habitat Model Results	23
<b>Funding Sources for Land Conservation</b>	<b>74</b>	Map 5.8 Wildlife Resources: Significant Bird Habitat	24
<i>State Programs</i>	74	Map 5.9 Wildlife Resources: Fish-bearing Streams and Other Riparian Areas	25
<i>Federal Programs</i>	77	Map 5.10 Wildlife Resources: Forest Structure and Tree Size	26
<i>Local Revenue Options</i>	82	Map 5.11 Wildlife Resources: Mule Deer Winter Range Model Results	27
<i>Special Purpose Districts</i>	85	Map 5.12 Wildlife Resources: Other Priority Habitats and Species (WDFW)	28
<b>Funding Quilt Case Studies</b>	<b>89</b>	Map 5.13 Wildlife Resources: The “Best of the Best”	29
<i>Gallatin County, Montana: Open Land Bonds</i>	89	Map 5.14 Existing Recreational Resources	32
<i>Boise, Idaho: Foothills Conservation Levy</i>	90	Map 5.15 Potential Recreational Resources	33
<b>F. Stemilt Partnership Implementation Framework</b>	<b>91</b>	Map 5.16 Agricultural Resources: Crop Type	35
		Map 5.17 Agricultural Resources: Soils	36
		Map 5.18 Development: Existing Structures	38
		Map 5.19 Development: Existing and Potential Structures	39
		Map 6.1 Water Resources: Snow Retention and Water Storage Areas	42
		Map 6.2 Wildlife Resources: Wildlife and Habitat Areas	44
		Map 6.3 Recreational Resource Areas	46
		Map 6.4 Conceptual Plan	48



# 1. EXECUTIVE SUMMARY

In the spring of 2007, Chelan County established the Stemilt Partnership (Partnership)—a broad coalition of agriculture, wildlife, recreation, development, and conservation interests—in response to the proposed privatization of 2,500 acres of public land in the Stemilt basin owned by the Washington Department of Natural Resources (DNR) (Map 1.1).<sup>1</sup> Recognizing the critical role these lands play in providing clean and essential water, wildlife habitat, and recreational opportunities to the growing local community, the Partnership and Chelan County worked with DNR to stop the sale and pursue an alternate approach: create a plan for the landscape based on the needs and wants of the community.

The Partnership worked closely with Chelan County and The Trust for Public Land (TPL) to develop a community vision and landscape strategy for the entire Stemilt-Squilchuck watershed. To do so, TPL: (1) conducted extensive community outreach including a survey, workshop, and development of working committees; (2) analyzed and mapped agriculture, water, wildlife, and recreational resources; (3) researched viable conservation funding sources; and (4) consulted with local residents, community leaders, and agency experts throughout the visioning process.

The result is the Stemilt-Squilchuck Community Vision. In this report, we analyze and overlay information to reveal the many interdependent relationships in the watershed, identify significant challenges and opportunities, and present a common vision and road map for action for the Partnership.

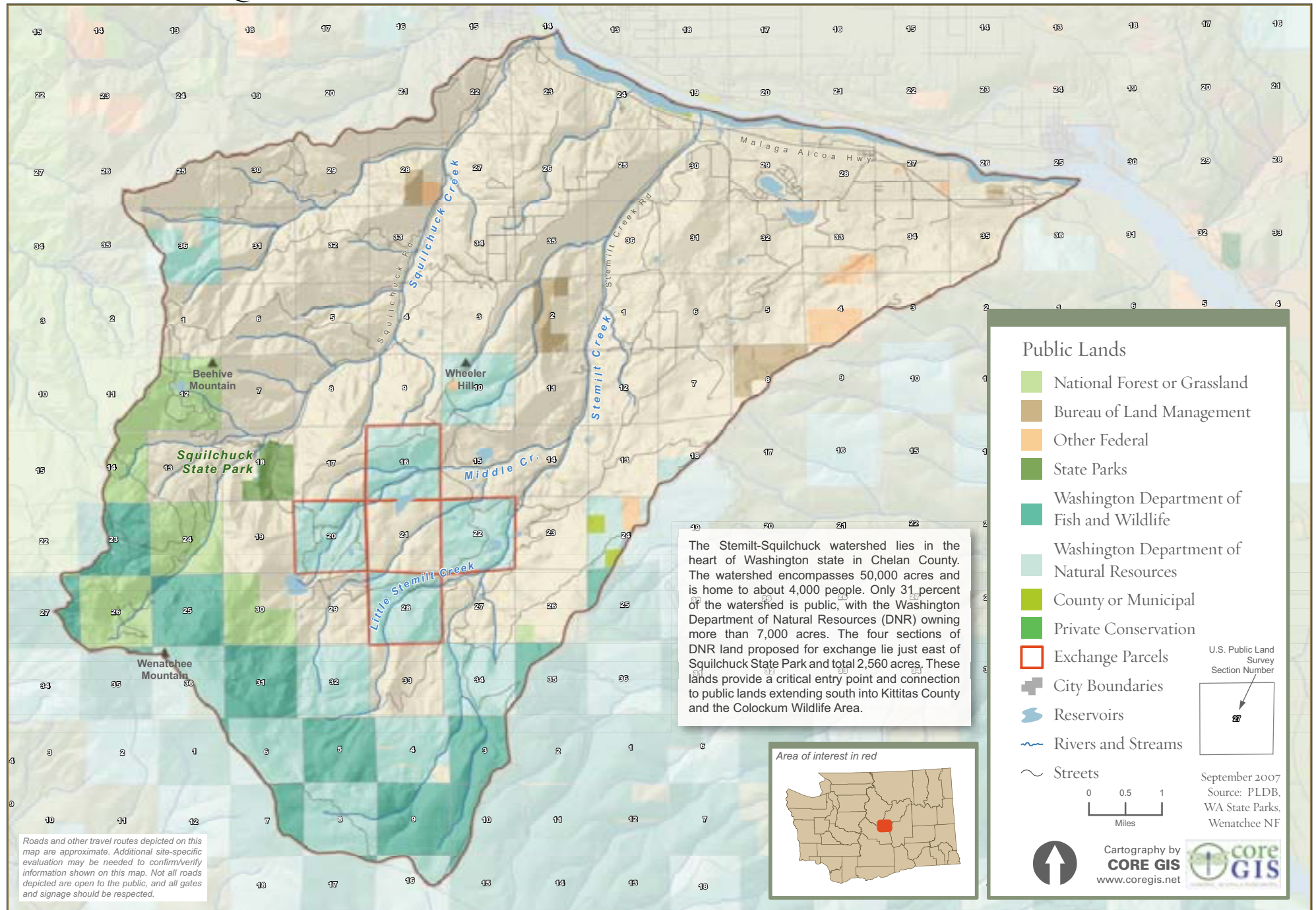
The Stemilt-Squilchuck Community Vision honors the wishes of the community by focusing on protecting water resources, conserving critical habitat for fish and wildlife, and maintaining recreational access to public lands. The community believes:

- Resource lands in the upper watershed cannot support urban-level development;
- Careful land and water management in such an arid landscape is essential to sustain the local agricultural economy, conserve wildlife resources, and support the way of life in the community;
- New development can be supported in the watershed with careful planning and consideration of local interests; and
- The watershed can be a model in the region for a balanced landscape, meeting agricultural, wildlife, and recreational needs while continuing to grow and prosper.

---

<sup>1</sup>The Stemilt sale was initially proposed as part of the now-completed Washington Department of Natural Resources (DNR) Central Cascades Land Exchange with Western Pacific Timber, LLC. The exchange, completed on February 22, 2008, brings a net gain of nearly 62,000 acres of state trust land, which allows DNR to consolidate ownerships, increase land management efficiencies, and provide long-term trust revenue that helps build public schools, universities, and other public institutions. This exchange also creates public ownership areas large enough to serve multiple uses, including plant and wildlife habitat, recreation, and forest resources, in a sustainable manner. The Stemilt sale was not included in the final exchange. Source: [http://www.dnr.wa.gov/Publications/amp\\_exc\\_cc\\_summary\\_sheet\\_4\\_30\\_2008.pdf](http://www.dnr.wa.gov/Publications/amp_exc_cc_summary_sheet_4_30_2008.pdf) (accessed May 28, 2008).

# MAP I.I STEMILT-SQUILCHUCK WATERSHED: PUBLIC LANDS



## Key Findings and Recommendations

The following findings and recommendations form the foundation of the Stemilt-Squilchuck Community Vision and provide a clear implementation framework for the Partnership.

### 1. Public lands—especially the four DNR sections and other lands in the upper watershed—are used and highly valued by local residents and visitors to the area.

#### Facts:

- The conversion of public land—and the four DNR sections—into private ownership threatens public use of the land and free access to a critical public land network.
- Public lands provide multiple public benefits, from recreation to water quantity and quality protection, not normally captured using traditional land-valuation methods.

#### Recommendations:

- The Stemilt Partnership should continue its work with DNR to keep the four sections in public ownership, using the Stemilt-Squilchuck Community Vision to demonstrate the multiple benefits the lands provide to the community.
- Chelan County and the Stemilt Partnership should seek opportunities for further public land ownership in areas that provide multiple benefits to the community.
- Chelan County and land-management agencies should continue to support the efforts of the Stemilt Partnership to raise and discuss major issues across interest groups and develop innovative solutions to problems or conflicts in the watershed.

### 2. New development and increased use of the watershed by a variety of interests are inevitable and pose a threat to critical resources and a challenge to land-management agencies.

#### Facts:

- New development—especially in the upper watershed—will increase pressure on wildlife, heighten wildfire risk, and negatively impact water resources. The extent of the impact will depend on the location and intensity of development.
- The public land and trail network provide easily accessible, exceptional—but minimally organized or managed—recreational opportunities.
- Some interests conflict and/or are incompatible due to their location, nature, and timing (e.g., elk calving season and off-road vehicle use).
- Illegal activities such as “mudding,” dumping, littering, trespass, and wildlife harassment have increased in recent years, and enforcement capacity can not keep pace with the activity.

#### Recommendations:

- Chelan County should direct growth to areas most appropriate for development, considering the location of critical water, wildlife, and recreational resources and existing development patterns.
- The Stemilt Partnership should continue to provide a community forum for addressing growth and recreation issues in the watershed, providing a critical touch point for the county and other land-management agencies.



### 3. The sustained involvement of broad interests in the Stemilt Partnership is critical to the success of the Stemilt-Squilchuck Community Vision.

#### Facts:

- The Stemilt Partnership is a rare collaboration of a broad variety of interest groups working toward a common vision.
- Broad coalitions are necessary to raise political and financial support at the local, state, and federal levels.

#### Recommendation:

- Chelan County and other land-management agencies should continue to participate in and support the Stemilt Partnership to ensure efforts and actions are aligned with the goals of the Stemilt-Squilchuck Community Vision.

### Next Steps

The future of the Stemilt-Squilchuck watershed is truly in the hands of its current residents. The proposed sale of the four DNR sections has been stopped and a resolution is close, but hard decisions must still be made, and the true work is yet to be done. Now that a community vision has been laid out and goals set for water, wildlife, and recreation, the community—led by the Stemilt Partnership—must come together to support the vision and take an active interest in its implementation.

#### Key actions to support over the short term include:

- Identifying alternative ownership and management scenarios in the upper watershed, specifically related to the four DNR sections and lands owned by Longview Fibre;
- Investing in technical surveys to resolve public and private easement issues and road management in the upper watershed;

- Aligning political support at the state and federal levels for conservation efforts supported by the Stemilt Partnership and Chelan County;
- Raising mainstream awareness of the Stemilt-Squilchuck Community Vision and what it means for the future of the community; and
- Establishing a specific work plan and action agenda to drive the activities of the Stemilt Partnership over the next two years.

#### Over the long term, key actions include:

- Establishing strong political support at the state and federal levels for conservation efforts supported by the Stemilt Partnership and Chelan County;
- Coordinating with current government-funded planning efforts such as the implementation of the Stemilt-Squilchuck Watershed Plan (WRIA 40A); and
- Securing the necessary funds and political support to ensure the Stemilt Partnership continues to be a viable, effective coalition.

Chelan County, the Stemilt Partnership, The Trust for Public Land, and several other agencies and organizations stand ready to work together toward the goals presented in this report and make the Stemilt-Squilchuck Community Vision a reality.



## 2. INTRODUCTION TO THE STEMILT-SQUILCHUCK WATERSHED

The Stemilt-Squilchuck watershed rises from the shores of the Columbia River through prized cherry orchards and towering subalpine forests to snowy Mission Peak, climbing nearly 6,000 feet along the way. Just ten minutes from the city of Wenatchee, the watershed provides wild solace for city dwellers needing a quick escape, and a quiet, rural haven for those who live in the area. The landscape is valued by many: long-time residents who have sweeping views of orchards, foothills, and the Columbia River; families who work the land to produce award-winning cherries; and outdoors-loving skiers, snowmobilers, equestrians, and anglers who recreate year-round throughout the watershed.

### The Landscape

Although the Stemilt-Squilchuck watershed is the smallest in the state, encompassing only 50,000 acres, it is one of the most interesting because of its varied terrain: high ridges, steep cliffs, large basins, deep channels, gravel terraces, and even a mesa characterize the landscape (Map 2.1). The watershed is composed of four subbasins—Stemilt Creek, Squilchuck Creek, Malaga, and Wenatchee Heights—that rise from semi-arid hills of shrub-steppe to subalpine forest and bare, rocky outcrops along Jumpoff Ridge and Naneum Ridge.

### Water Resources

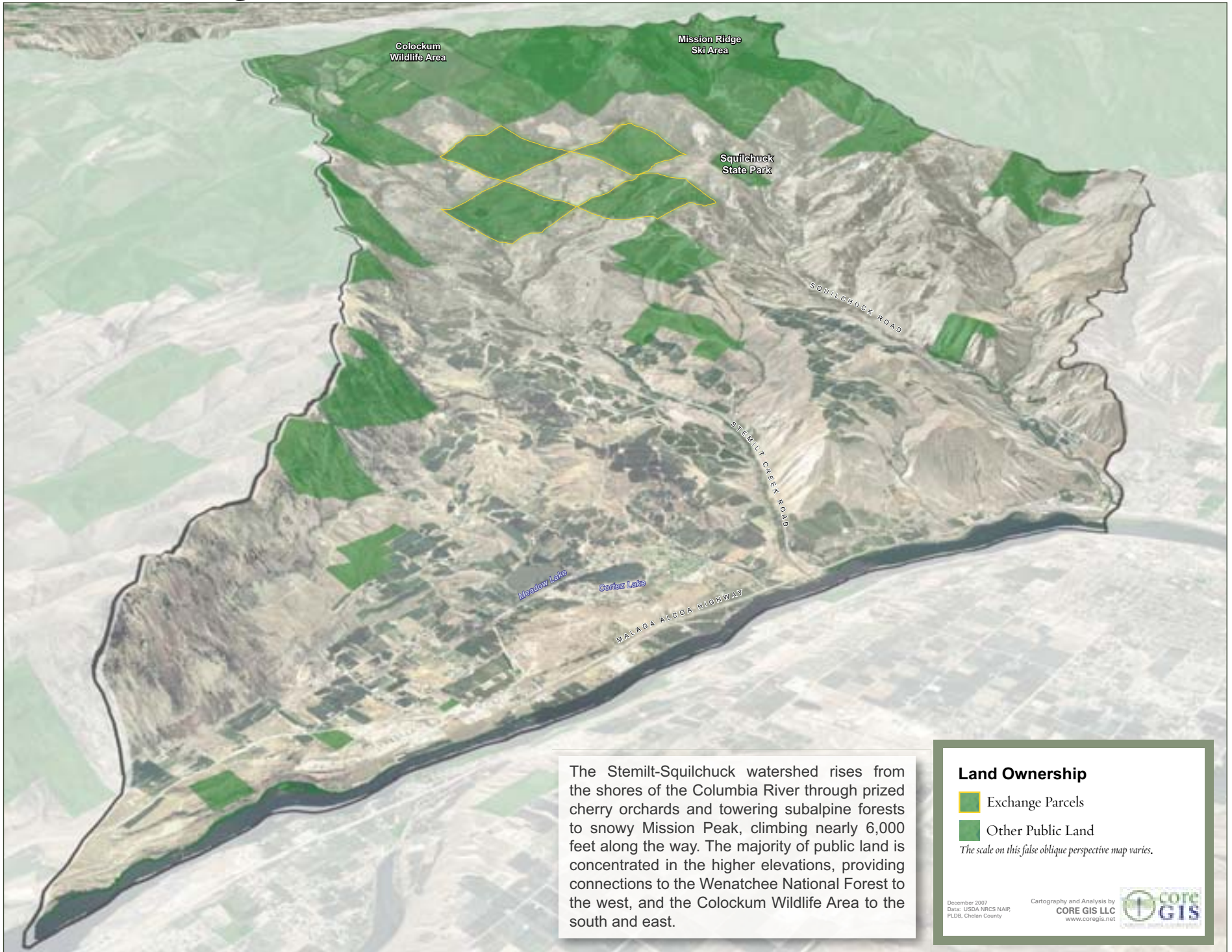
The source of life in the Stemilt-Squilchuck watershed is truly water. In the rain shadow of the Cascade Mountains, the semi-arid watershed receives approximately ten inches of rain a year at lower elevations, and more than 20 inches above 3,000 feet. In dry years, the watershed averages 16 inches of rain and, in wet years, 26 inches.<sup>2</sup> Precipitation provides 94 percent of the total water input to the watershed, with more than 70 percent of that precipitation falling as snow in the upper elevations; this makes the watershed extremely

<sup>2</sup>Water Quantity Assessment, WRIA 40A Stemilt-Squilchuck Watershed Plan (2007), p. 10-11.

A view of the Columbia River from the higher elevations of the watershed



# MAP 2.1 STEMILT-SQUILCHUCK WATERSHED: AERIAL VIEW AND PUBLIC LANDS



dependent on snowpack and water storage. As the snow slowly melts in spring and summer, water seeps underground and flows through the watershed to the reservoirs, homes, and orchards below.

Dating back to the 1870s, an elaborate irrigation system was created to sustain the tree crops and residents of the watershed through hot, dry summers. Today, the ever-more-complicated system of ditches, off-channel reservoirs, pipes, and other infrastructure provides a reliable water supply and delivery system that sustains the agricultural economy.

### **Agriculture**

Orchards dominate the landscape from the Columbia River up to about 3,200 feet, totaling more than 5,000 acres—about one million trees<sup>3</sup>—in the watershed. Cherry is the predominant crop (about 85 percent), but other fruits such as apples and pears are also grown. With rich soils, an ideal climate, and sufficient water supply, the area is regarded as having some of the most prized cherry-growing land in the world. In fact, much of the relatively flat, arable land (with sufficient access to and availability of water) in the mid-to-upper watershed is dedicated to orchards.

### **Fish and Wildlife**

The upper portions of the Stemilt-Squilchuck watershed provide critical seasonal habitat for elk and mule deer in the summer and spring. The large, intact landscape provides for wildlife movement north and south over Naneum Ridge into the Colockum Wildlife Area and east to west from the low-elevation winter range to the higher-elevation summer range of Blewett Pass. The watershed is also home to an abundance of fish and wildlife including, but not limited to, the spotted and flammulated owl, white-headed and pileated woodpecker,

elk, mule deer, western toad, west-slope cutthroat, rainbow trout, eastern brook trout, and predators such as black bear, bobcat, and mountain lion.

### **Land Ownership**

While over 80 percent of Chelan County's land is in public ownership, only 31 percent—just more than 15,000 acres—of the Stemilt-Squilchuck watershed (including the four DNR sections) is in public ownership. Presently, Washington DNR is the major public landowner, owning 7,413 acres; Washington Department of Fish and Wildlife (WDFW) is the second-largest public landowner with 3,878 acres (8 percent of the entire watershed). As represented in Map 2.2, public lands are concentrated in the upper elevations of the watershed. On the western edge of the watershed, the U.S. Forest Service owns more than 3,000 acres, including Mission Ridge Ski and Snowboard Resort, which leases land to operate winter ski recreation facilities. Squilchuck State Park—240 acres—is also located along Squilchuck Road, providing camping, equestrian, and hiking opportunities on a seasonal basis.

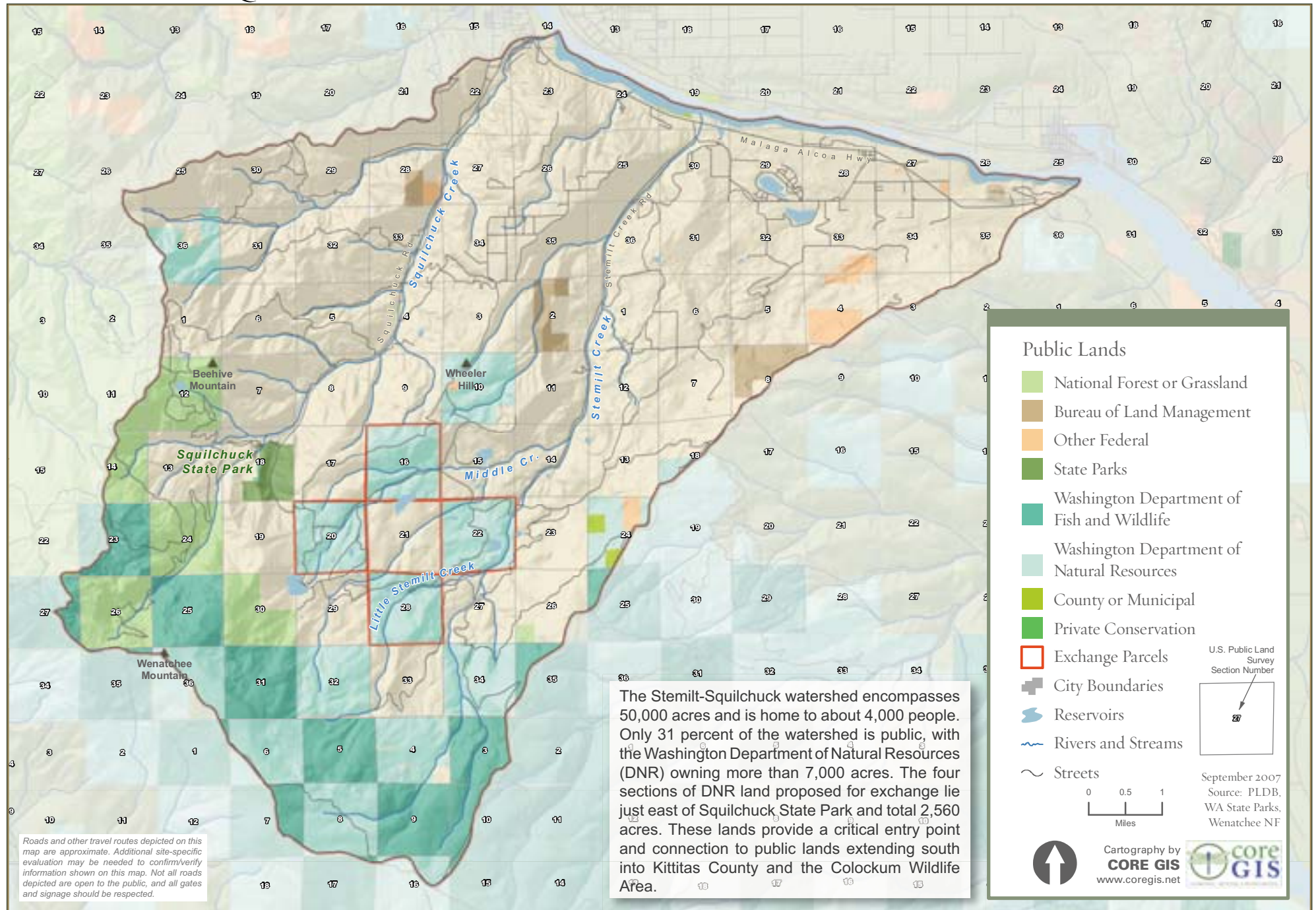
The largest private landowner is Longview Fibre, which owns more than 3,600 acres of working forestland in a checkerboard pattern in the upper reaches of the watershed. Private residential and agricultural land development dominates the lower elevations. In recent years, the less densely developed areas of the upper watershed are of increasing interest for private development opportunities as the county's population grows.

---

<sup>3</sup> On average, cherry orchards have 250 trees per acre. For 5,000 acres of orchards, predominantly cherry, that equates to approximately 1,250,000 trees. Calculation based on reference in the following article: "Windstorm Took a Bite out of Cherries," *Wenatchee World*, January 22, 2007 (<http://wenatcheeeworld.com/apps/pbcs.dll/article?AID=/20070122/NEWS04/701220354>) (accessed May 13, 2008).



# MAP 2.2 STEMILT-SQUILCHUCK WATERSHED: PUBLIC LANDS



## The Community

The Stemilt-Squilchuck watershed is a close-knit community, with families going back several generations to the mid-1800s. Today, about 4,000 people live in the watershed, concentrated along Squilchuck Creek and in the Malaga area. By 2025, the population is forecast to grow about 30 percent (1,200 people); more people and more homes will present new challenges for the community related to water resources, agricultural operations, habitat conservation, and recreational opportunities.

## Economy

The orchard business is the driving economic engine for the watershed and the region. With more than 5,000 acres of orchard valued at over \$64 million<sup>4</sup> to the local economy, the industry is part of everyday life in the watershed. Stemilt Growers, the leading tree-fruit grower-packer-shipper in the country, started in the early 1900s on Stemilt Hill. Today, the company is known around the world and provides reliable business opportunities for families in the area.

In the higher elevations of the watershed, forestry production has historically been an economic activity. Today, forestry is an ever-decreasing activity with private timber interests owning less land (and processing facilities shutting down<sup>5</sup>) and even state trust lands, logged to generate income for state programs, easing production. Although logging activities will likely continue in the future, they will constitute a small fraction of the economic activity in the watershed.

A growing part of Chelan County's economic portfolio is the recreation and tourism industry: more and more people are attracted to the Chelan and Wenatchee area for easy access to recreational opportunities and the nascent agri-tourism industry (e.g., wineries). The Stemilt-Squilchuck watershed, with Mission Ridge Ski and Snowboard Resort, plentiful trails, and local farms to visit, may benefit more from this burgeoning industry in the near future.

<sup>4</sup> Estimates provided by Timothy J. Smith, Washington State University Extension – Tree Fruit Production, February 18, 2008.

<sup>5</sup> The Winton Lumber Mill, previously owned and operated by Longview Fibre, officially closed its doors in June 2007. The mill was the last operating lumber mill in Chelan County. For more information, visit: <http://wenatcheeeworld.com/apps/pbcs.dll/article?AID=/20070618/NEWS04/706180354/0/FRONTPAGE> (accessed May 20, 2008).

## Recreation

Although the Stemilt-Squilchuck watershed is the smallest in the state, it is one of the most active and serves a wide array of recreational interests. The Green Dot road system, logging roads, and other trails provide year-round access to public lands in the upper watershed and are heavily used by snowmobilers, bikers, hunters, hikers, equestrians, off-road vehicles, and others. Also, Mission Ridge Ski and Snowboard Resort regularly attracts more than 100,000 visitors a year—almost 112,000 in the 2008 season.

Hunting for elk, mule deer, turkey, and other wildlife is one of the most popular activities in the area. Fishing at the trout-planted lakes of Beehive Reservoir, Springhill Reservoir, Clear Lake, and Lily Lake is also a favorite pastime.

## Major Issues and Opportunities

Issues are not stand-alone in the Stemilt-Squilchuck watershed: recreation, agriculture, water, wildlife, and development issues overlap and are interconnected. As the watershed grows and more and more people use the area in the coming years, balancing the needs and interests of the community will become increasingly complex. Through community outreach and ongoing discussions of the Stemilt Partnership, these major issues—that, in turn, present opportunities—were identified:

**1. Potential changes in land ownership in the upper watershed present challenges and opportunities for the community.** With the proposed sale of the four DNR-owned sections, the Stemilt Partnership rallied to stop the sale and find a reasonable solution for future ownership and management. Surrounding lands owned by Longview Fibre are also in a state of flux, as the company considers divesting of its assets in Chelan County. With a change in ownership comes a change in accessibility, use, and management of the land.

While the ultimate ownership and management of these lands—and others—is still in question, the Stemilt-Squilchuck Community Vision documents the community value of lands in the watershed, and it will provide new opportunity and reasoning for ideal use and management.

**2. People with diverse—and sometimes incompatible—interests use and depend on the watershed.** Although seemingly quiet and rural, there is lots of activity in the Stemilt-Squilchuck watershed throughout the year. From winter snowmobiling and skiing to summer fruit harvest and biking, a variety of interest groups are always active in the area. Problems arise when recreation disrupts or conflicts with wildlife, or proposed new development negatively impacts the water supply or access to public land.

While there will always be conflicts of interest at some level in the watershed, there is opportunity to reduce conflicts through the partnerships, relationships, and greater understanding that have grown out of the Stemilt Partnership and development of the Stemilt-Squilchuck Community Vision. Innovative seasonal management arrangements, stewardship partnerships, and transparent decision-making processes may reduce instances of conflicts.

**3. The close proximity of the watershed to Wenatchee allows for easy access to a “wild” landscape, but also invites illegal activities that can damage the land and necessary infrastructure.** Illegal activities such as mudding<sup>6</sup>, dumping, littering, trespass, and wildlife harassment have increased over the years. Violations of the Green Dot road rules and off-roading continue to be a problem. The persistent and, in many cases, increasing nature of such activities not only frustrates those who care about the area, it also poses a threat to irrigation infrastructure, natural resources, and common uses of the land. The existing level of enforcement cannot keep up with the illegal activity.

---

<sup>6</sup>“Mudding” is a form of off-roading that often takes places in moisture-rich meadows. Four-wheel-drive vehicles are driven through meadows or other muddy areas, leaving deep ruts and muddy bogs. The activity not only tears up pristine meadows, it impacts the ability of the meadow to soak up water and contributes to sedimentation of nearby streams. Mudding is illegal on public lands in Washington state and is looked down upon by the law-abiding off-roading community.

While illegal and damaging activities will likely always take place in the watershed, innovative public-private partnerships such as the irrigation districts working with sport clubs may increase enforcement, improve deterrent infrastructure such as gates and other blockades, and influence tougher penalties for illegal activities.

**4. An increase in residential development and recreational use in the upper watershed may increase pressure on wildlife and water resources and heighten the risk of wildfire.** As the county continues to grow and more homes are built on the fringe of urban areas, areas such as the Stemilt-Squilchuck will see more development and more use of public lands for hiking, biking, touring, and more. More development and use may negatively impact critical wildlife habitat and water resources as well as increase the risk of wildfire with irresponsible behavior in an arid landscape.

While some increase in development and recreational use is inevitable, it can be directed to areas that are most appropriate given all that is known about the watershed. The Stemilt Partnership can provide a community forum for future discussion of these issues and a critical touch point for the county and other land-management agencies.





Gar Racus at the entrance to his orchard

### 3. CRAFTING A COMMUNITY VISION

A community vision is a planning effort that engages a broad spectrum of the community to work together to identify shared goals and key strategies for a defined landscape. The foundation of a community vision is public involvement—without ample community input and engagement, a community vision will simply not be fulfilled. With a thoughtful, shared vision, a community has a road map for the future to help guide decisions as conditions and leadership change.

In the fall of 2007, Chelan County and the Stemilt Partnership embarked on a community visioning exercise, led by The Trust for Public Land (TPL), for the Stemilt-Squilchuck watershed. While the primary objective of the Stemilt Partnership is to inform alternative ownership and management scenarios for the four proposed exchange sections, the community vision looks at the entire landscape—across parcel boundaries—to accomplish the following:

- Identify community values, priorities, and shared goals through community outreach;
- Inventory community priorities using Geographic Information Systems (GIS) mapping and modeling;
- Identify viable sources of funding for conservation activities in the watershed; and
- Establish a framework for future action planning and decision-making in the watershed.

Over the course of ten months, TPL led the community through a visioning process grounded in public input. With values and priorities now documented, the community vision not only helps address the immediate concerns of the four proposed exchange sections, it also will help in the coming years as the



community faces new challenges that will undoubtedly impact the area's natural resources, recreational opportunities, and overall quality of life.

## **The Community Visioning Process**

### ***Community Outreach***

Community outreach provides the opportunity to gather on-the-ground knowledge from people who live in, work in, and generally care about a community. For the Stemilt-Squilchuck Community Vision, citizens, organizations, and agencies with an interest in the watershed were involved in the development of the vision in four primary ways: (1) participation in a community survey; (2) participation in a community workshop; (3) involvement in the Stemilt Partnership; and/or (4) involvement in technical subcommittees.

### **Community Survey**

The Stemilt survey was distributed to more than 40 individuals representing various interests (e.g., recreation, agriculture, natural resources, etc.) in the basin. The survey was composed of six open-ended questions that gauged (1) what is special or unique about the area; (2) how the area has changed over the last ten to 20 years; (3) how the community would like the area to change in the coming years; and (4) what actions and activities would be appropriate to protect the special qualities of the area. The open-ended format provided respondents flexibility in the specificity and length of their responses. In total, 20 surveys were collected. (See Appendix B for a summary of results.)

### **Community Workshop**

About 20 people participated in the community workshop, held December 12, 2007. The workshop used information gathered through the survey as a foundation for focused discussions on recreation, agriculture and water resources, development, and wildlife resources. Community members cycled through four

interactive stations that encouraged information sharing through drawing on maps and indicating priorities through a dot exercise. The workshop generated community conversation and gathered additional information from people who live in the watershed. (See Appendix B for a summary of results.)

### **Committee Structure and Involvement**

To ensure the Stemilt-Squilchuck Community Vision was well-informed and grounded in local knowledge, several committees of the Stemilt Partnership were formed to guide the vision through its developmental stages.

#### ***Stemilt Partnership***

The Partnership is composed of members of all participating organizations (see Appendix A) and meets once every one to two months. The Partnership is the sounding board and discussion forum for all things related to the Stemilt-Squilchuck watershed. Ultimately, the Partnership will be the organizing body for implementing the Stemilt-Squilchuck Community Vision.

#### ***Stemilt Partnership Subcommittee***

The subcommittee is composed of self-selected members of the Partnership who want and are able to be more involved in Partnership activities. The subcommittee played a key role in the original scoping and brainstorming of the Stemilt-Squilchuck Community Vision. The subcommittee meets on an as-needed basis.

#### ***Stemilt Technical Subcommittees***

The technical subcommittees were formed to guide the GIS mapping and modeling portion of the community vision. Subcommittee members were self-selected based on interest and knowledge base. "Local experts" were recruited to provide input based on interests and professional background.

Ultimately, one subcommittee was formed for each of the major goal areas: recreation, fish and wildlife resources, and water resources. The committees met three to five times over the course of four months.

### **GIS Mapping and Modeling**

Mapping is an important component of any visioning exercise because it provides a necessary frame of context for everyone involved in the development of a community vision. Seeing existing orchards, roads, property boundaries, wildlife habitat, forest types, popular trails, and a variety of other attributes represented spatially allows everyone to look beyond their property—or the four proposed exchange sections—to gain a greater understanding of the landscape.

For the Stemilt-Squilchuck Community Vision, local knowledge was combined with scientific data to provide an accurate representation of important landscape features and characteristics. For instance, much of the recreation information gathered for the vision was new data that had not been documented before. This information was combined with some existing trails and roads data, making the final recreation output much stronger. People who live and work in the watershed know the area intimately and have knowledge such as where the snow lasts the longest and the location of large ponderosa pine stands, which was captured through drawing on maps.

Once an accurate inventory of landscape information was created, GIS modeling was used to combine and analyze data based on parameters defined by the technical subcommittees. Ultimately, the GIS mapping and modeling provide the Stemilt-Squilchuck Community Vision with a solid foundation for further landscape analyses. (See Appendix C for a more detailed methodology.)

### **Conservation Finance Research**

Funding conservation work—restoration, acquisition, or maintenance of land—has become increasingly complex, as federal funds have waned over the years and competition has increased. Today, two or more funding sources are often needed to complete a project. State and local governments have also created new and expanded existing conservation funding sources at an increasing rate, generating important funds to leverage in the competitive pool of federal funds.

TPL evaluated relevant state and federal conservation funding programs that may be knit together and leveraged by the county to fund the goals of the community vision. Options for generating and dedicating local revenue for conservation, including the revenue-raising capacity and costs of several financing tools, were also reviewed. Together, the information provides a guide for considering public finance options to fund the conservation of open spaces in Chelan County. (See Appendix E for the conservation finance study.)

### **Plan Development**

The final stage of a community vision is bringing the pieces together into a plan that sets the stage for action and achievement of the vision's goals. The final plan pulls together all the information gathered throughout the visioning process and lays out action-oriented opportunities to set the wheels of implementation in motion.



Mule deer buck





#### 4. SHARED VISION AND GOALS FOR THE LANDSCAPE

Behind every successful community vision is an involved community that shares common goals for the landscape and is dedicated to achieving those goals. In the Stemilt-Squilchuck watershed, a dedicated collaboration of individuals who work, live, and play in the watershed makes up the Stemilt Partnership. Through community outreach and ongoing engagement of the Partnership, a shared vision—one that best meets the range of interests in the watershed—includes the following:

- Water resources are protected, ensuring adequate water supply for irrigation and domestic purposes;
- Wildlife resources are conserved, maintaining critical habitat and corridors;
- Recreational access to hunting grounds, trails, fishing reservoirs, and other recreational lands is maintained and enhanced where appropriate; and
- New development is low-impact and well-planned, considers multiple uses where appropriate, and meets the requirements of the community's shared goals.

Overall, the community wants to keep the watershed healthy and wild, protecting natural resources such as water and wildlife and limiting development in the upper watershed as a means to protect the common values of water, wildlife, and recreation.

Greg Berdan and dog,  
Daisy, take a walk in the  
Wenatchee Heights



To work toward an action-oriented plan, the shared vision can be translated into goals, which provide a framework for GIS mapping and modeling and an inventory of landscape values. Broad goals include:

- Protect water resources;
- Conserve wildlife resources; and
- Maintain and enhance recreational access.

For each goal, a technical subcommittee was formed to determine how to best define the goal based on local knowledge and scientific data. (See Chapter 5.) While a development goal is not explicitly stated, it is assumed that future development will meet the requirements of the above goals and be directed to appropriate areas in the watershed.



Bull elk resting in a meadow

## 5. LANDSCAPE INVENTORY: MAPPING SHARED GOALS

To develop maps for the Stemilt-Squilchuck Community Vision, TPL and the technical subcommittees gathered all relevant existing data from local, state, and federal sources and created new data—especially recreation information—to create an accurate representation of local water, wildlife, and recreational resources. The technical subcommittees also provided critical feedback to define each goal area, as described in greater detail below.

### Goal 1: Protect Water Resources

Families settled on Stemilt Hill in the mid-1800s and developed a complicated infrastructure system to move water from the upper watershed to the homes and orchards below. Today, the 5,000-plus acres of orchards in the watershed produce more than four million pounds of cherries annually, bringing more than \$64 million back to the region.<sup>7</sup> Protection of the watershed’s water resources is absolutely essential to sustain the agricultural production and heritage of the area.

To accurately inventory water resources and determine priority protection areas, the water technical subcommittee relied heavily on the information and data developed for the Stemilt-Squilchuck Watershed Plan (WRIA 40A)<sup>8</sup>. The subcommittee agreed that water supply or production was the most important variable—without water there would be no agriculture, fish, or wildlife. With limited data available and a short time frame to accurately measure water production, local knowledge and science were combined to identify areas where snow gathered the most and lasted the longest. The reasoning behind identifying these areas is that snowpack is critical for groundwater recharge in the watershed. As the snow slowly melts, water percolates through the soil and rocks and feeds the streams and wetlands that are the source of water for the irrigation reservoirs.

---

<sup>7</sup> Estimates provided by Timothy J. Smith, Washington State University Extension – Tree Fruit Production, February 18, 2008.

<sup>8</sup> For more information on the Stemilt-Squilchuck Watershed Plan (WRIA 40A) visit [http://www.co.chelan.wa.us/nr/nr\\_stemilt\\_squilchuck.html](http://www.co.chelan.wa.us/nr/nr_stemilt_squilchuck.html) (accessed May 28, 2008).

Snowpack accumulation and persistence were modeled using GIS, based on five variables: elevation, aspect, vegetation, precipitation, and crown closure. Also, the technical subcommittee indicated on a map where snow persisted the longest, identified as “areas of high snow retention” in Map 5.1. The characteristics (corresponding to the five variables above) of those areas were then extrapolated to the entire watershed, and priority areas for water production were identified. (See Appendix C for methodology.) The model was applied to lands 3,000 feet or higher, per the recommendation of the technical subcommittee.

Existing water storage and future expansion and development opportunities were also mapped based on information developed as part of the Stemilt-Squilchuck Watershed Plan.

### Major Findings

Seventy percent of the watershed’s water is collected at elevations of 3,000 feet or higher (Map 5.1).<sup>9</sup> The majority of the watershed is considered vegetated, or as having some type of land cover (e.g., trees, grasses, brush); only talus slopes in the upper watershed and along major power line corridors are considered unvegetated (Map 5.2.). Eight and a half percent of the watershed has slopes of 25 percent or greater, making them vulnerable to avalanches based on research by Pascal Hägeli<sup>10</sup> (Map 5.2). Of the 1,270 acres identified by the subcommittee as important for snow retention (outlined in red on Maps 5.1-5.5), 85 percent of those lands have 60 percent or higher canopy closure, emphasizing the importance of forest cover to snow retention (Map 5.3). Similarly, the four most prevalent aspects in the same area include northeast, east, north, and northwest (Map 5.4); these areas are exposed to the least sun in the winter months.

---

<sup>9</sup> Water Quantity Assessment, WRIA 40A Stemilt-Squilchuck Watershed Plan (2007), p. 10.

<sup>10</sup> Pascal Hägeli, Atmospheric Science Program Department of Geography University of British Columbia Vancouver, Canada, [pascal@geog.ubc.ca](mailto:pascal@geog.ubc.ca).



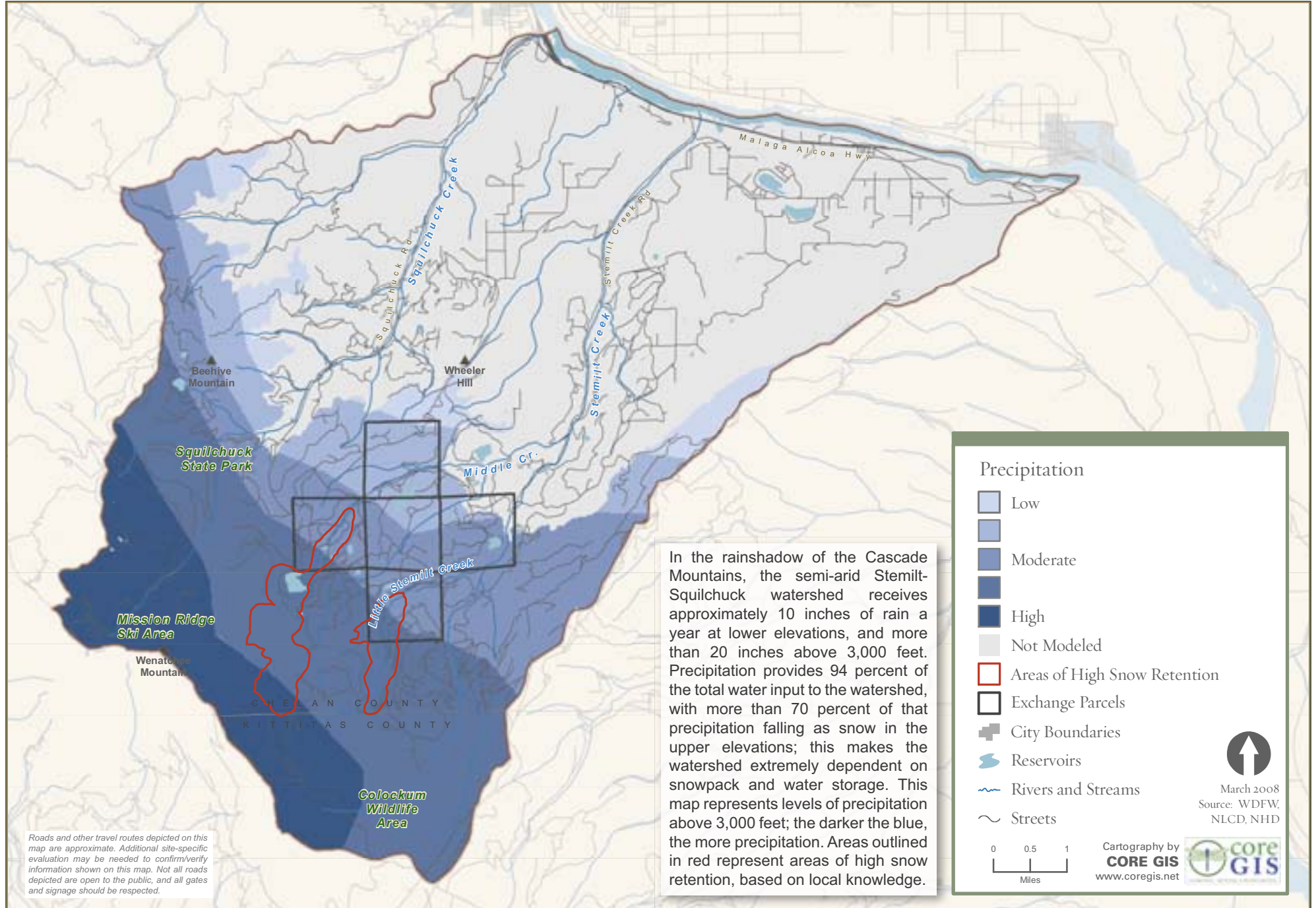
Combining the five variables of precipitation, vegetation, slope, aspect, and crown closure, the final results of the snow retention analysis show 14 percent (7,183 acres) of the watershed is considered very important for snow retention; these areas are primarily concentrated in the southern portion of the watershed at the upper elevations (Map 5.5). Of the lands considered very important, 75 percent—more than 5,000 acres—are in public ownership. These lands are generally characterized by dense forest and north- or northeast-facing slopes.

Through the WRIA 40A watershed planning process, five sites were identified as potential for expanding or creating new water storage sites (Map 5.6). Those reservoirs included Rose Lake, Clear Lake, Beehive Reservoir, Lily Lake, and a potential new reservoir located near Lily Lake. Because proposed water storage sites are located on both private and public land, a change in ownership and management could affect the feasibility of new or expanded sites.



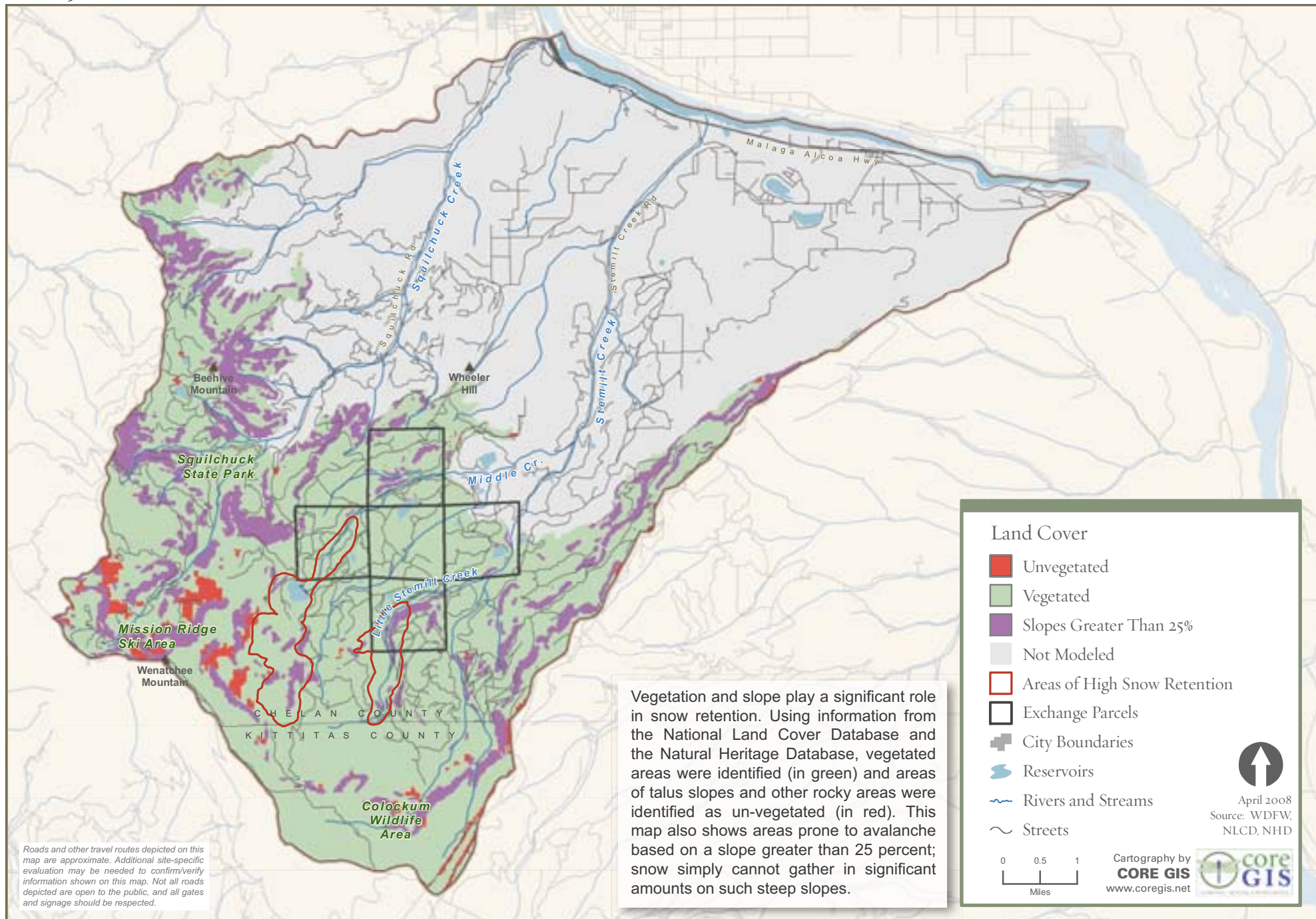
Spring Hill  
Reservoir

# MAP 5.1 WATER RESOURCES: PRECIPITATION



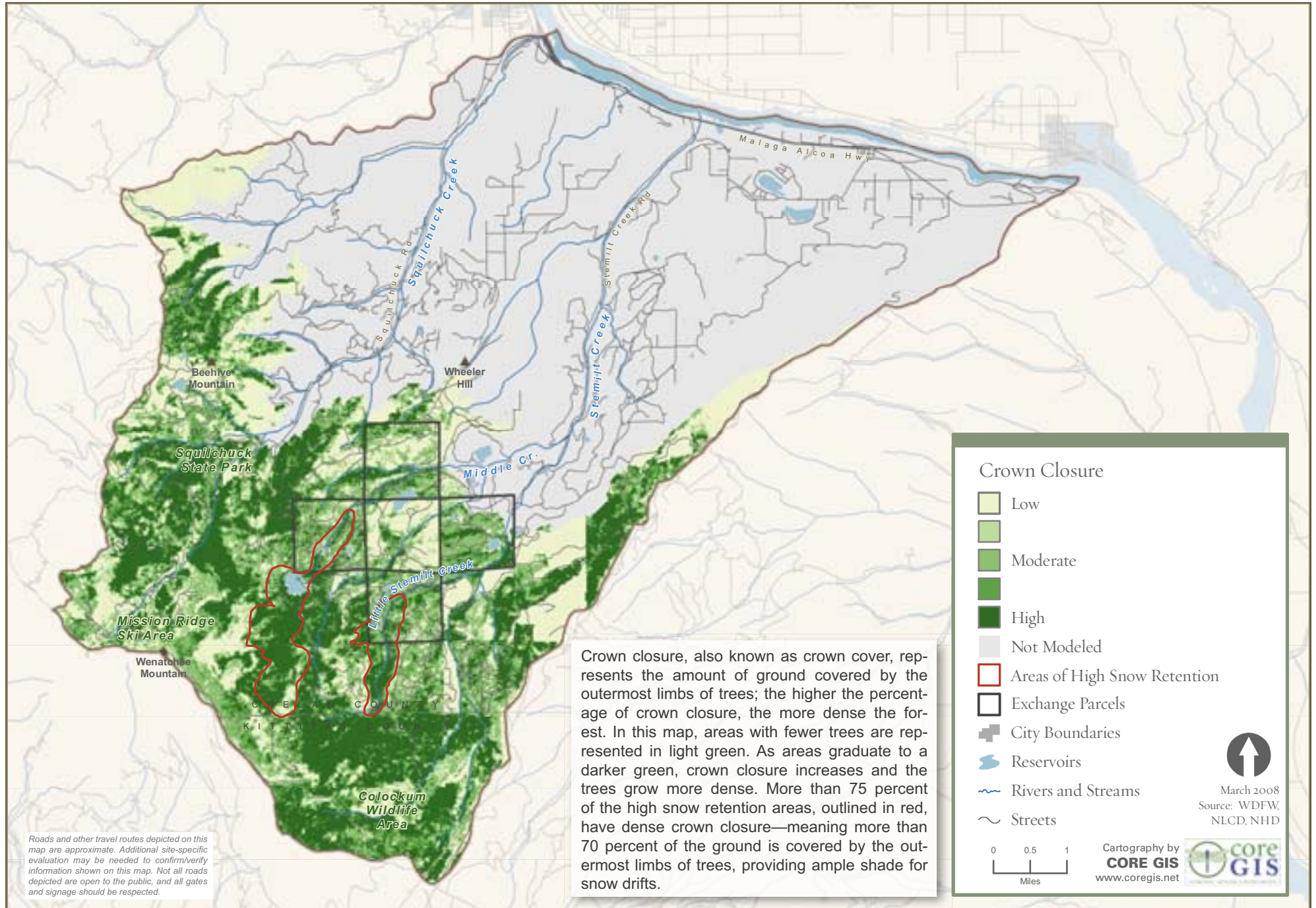


# MAP 5.2 WATER RESOURCES: VEGETATION AND SLOPE



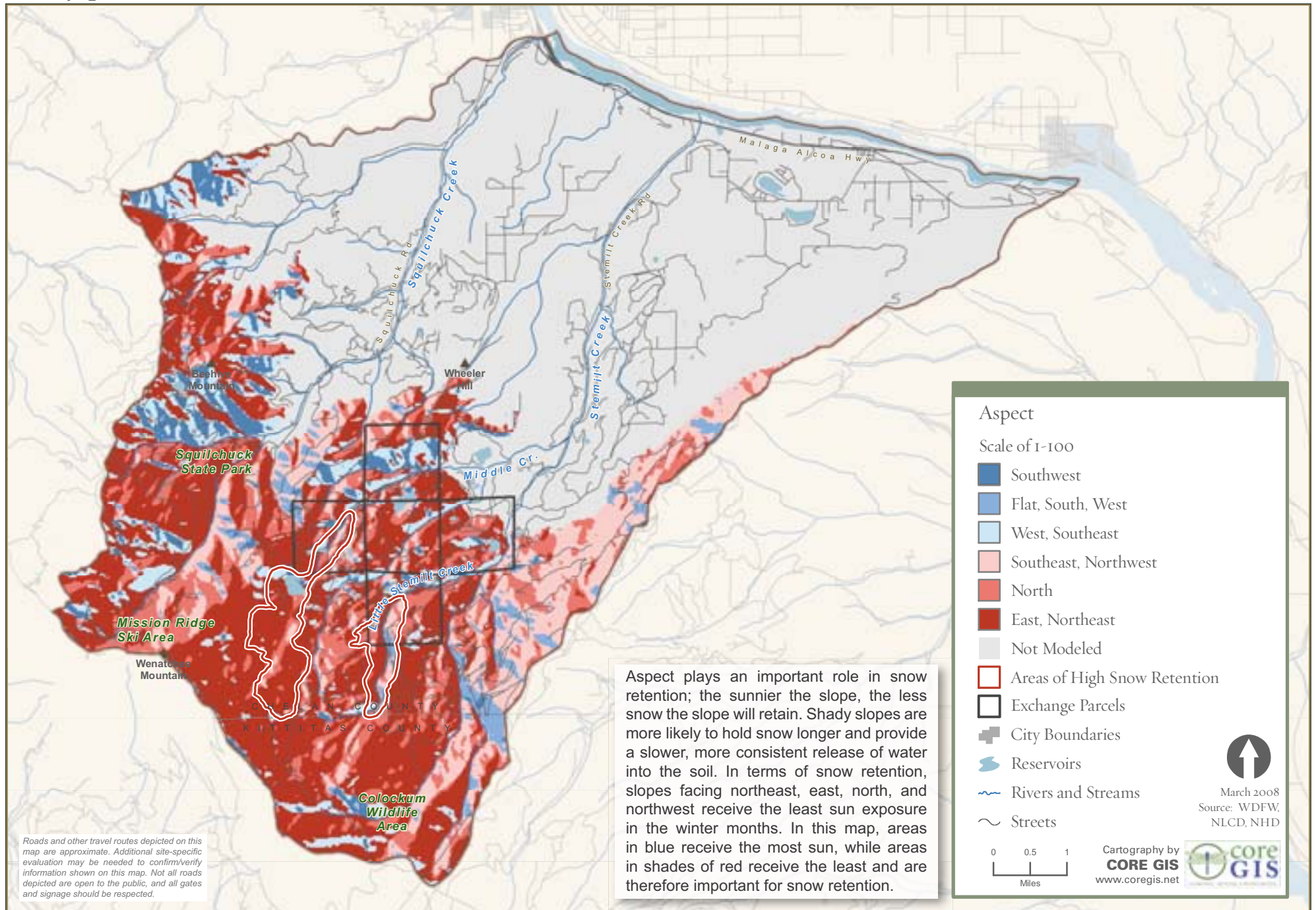


# MAP 5.3 WATER RESOURCES: CROWN CLOSURE





# MAP 5.4 WATER RESOURCES: ASPECT

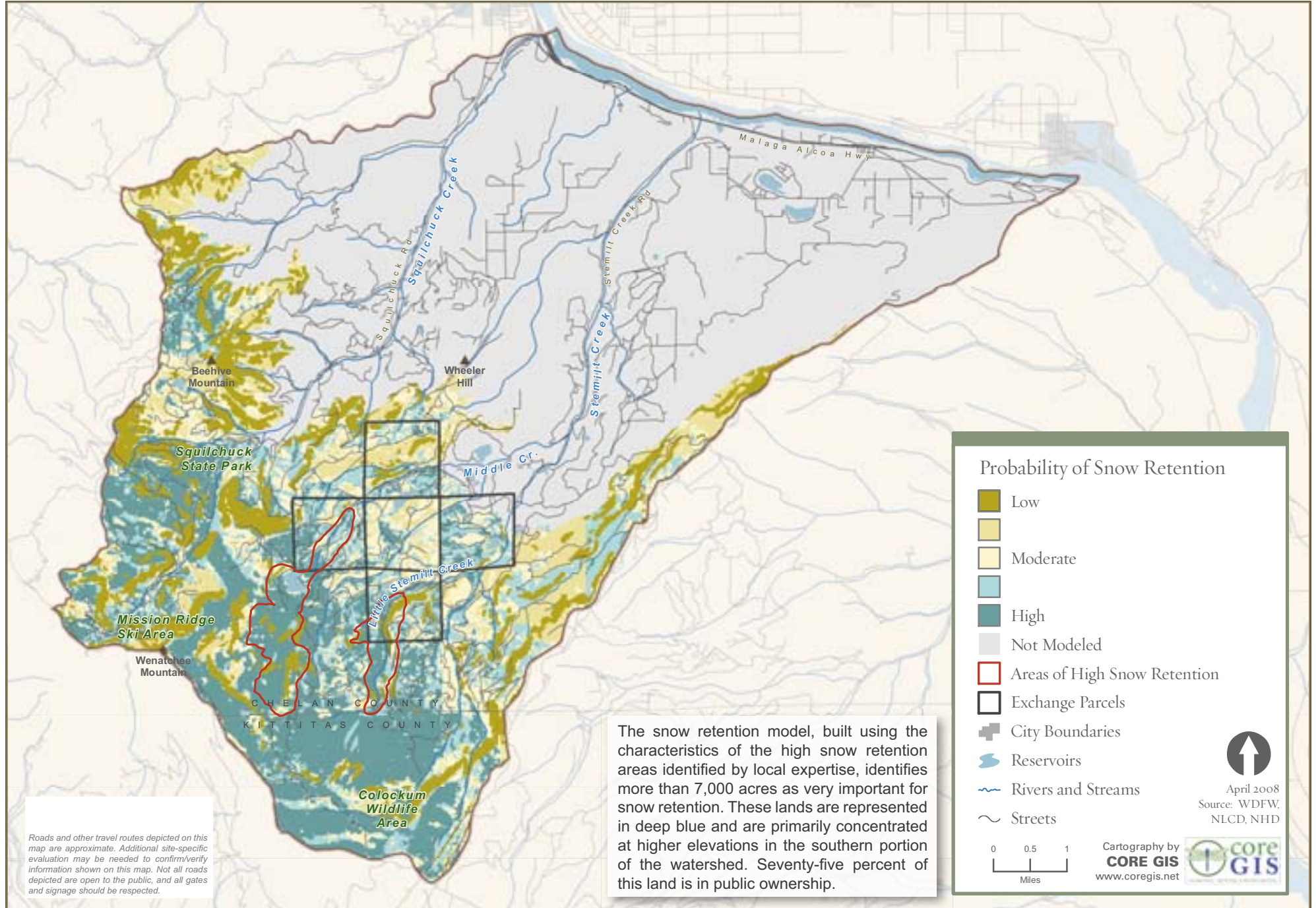


Aspect plays an important role in snow retention; the sunnier the slope, the less snow the slope will retain. Shady slopes are more likely to hold snow longer and provide a slower, more consistent release of water into the soil. In terms of snow retention, slopes facing northeast, east, north, and northwest receive the least sun exposure in the winter months. In this map, areas in blue receive the most sun, while areas in shades of red receive the least and are therefore important for snow retention.

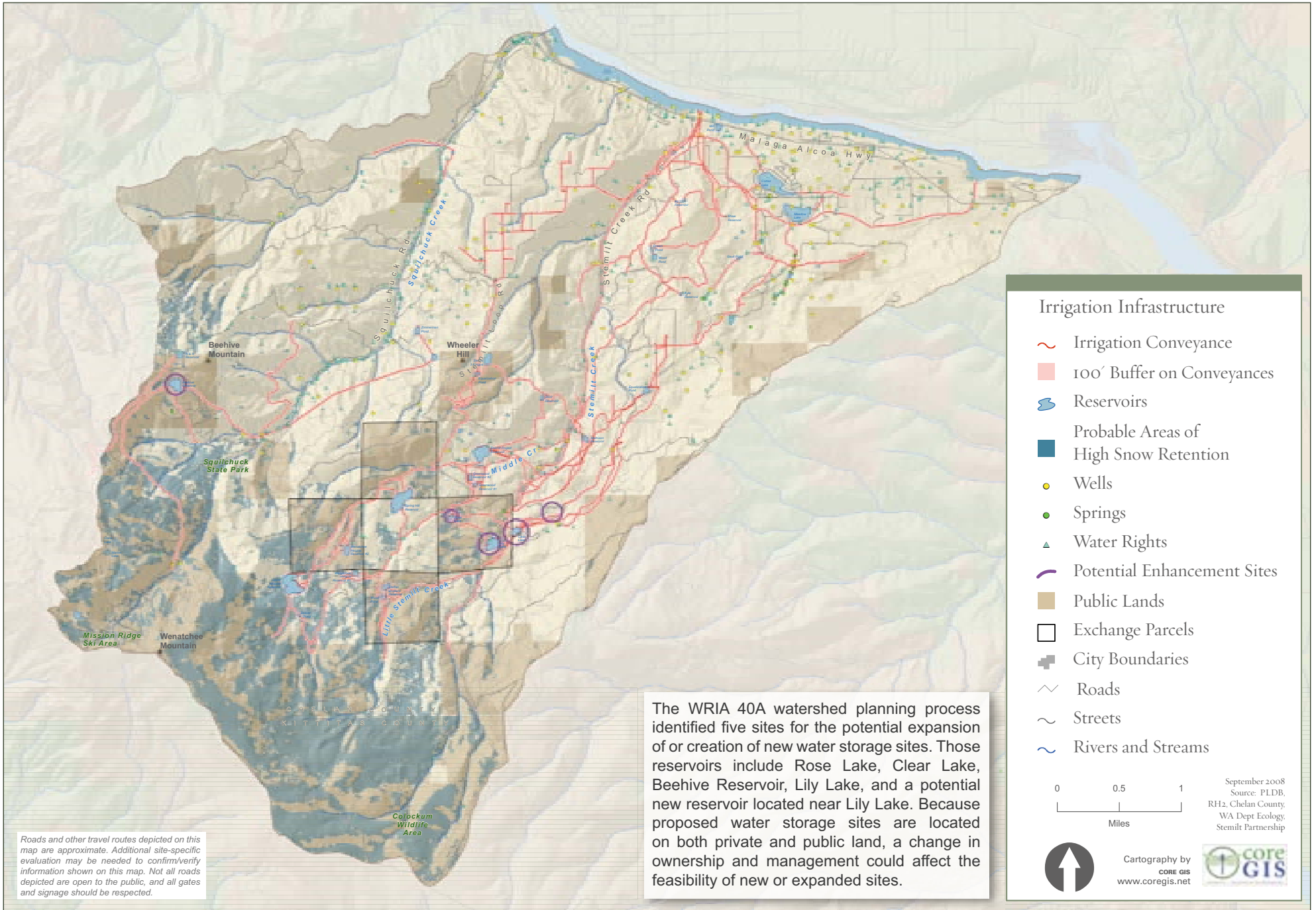
Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.



# MAP 5.5 WATER RESOURCES: FINAL SNOW RETENTION MODEL RESULTS



# MAP 5.6 WATER RESOURCES: EXISTING AND POTENTIAL WATER STORAGE AREAS



The WRIA 40A watershed planning process identified five sites for the potential expansion of or creation of new water storage sites. Those reservoirs include Rose Lake, Clear Lake, Beehive Reservoir, Lily Lake, and a potential new reservoir located near Lily Lake. Because proposed water storage sites are located on both private and public land, a change in ownership and management could affect the feasibility of new or expanded sites.

Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.

## Goal 2: Conserve Wildlife Resources

The Stemilt-Squilchuck watershed is a haven for wildlife. Elk and mule deer roam the landscape, using lower elevations for winter range and upper elevations for summer range. An estimated 500 elk use the upper watershed for calving grounds, and the area is a critical migration landscape for both elk and deer as they move from the Columbia River to the Colockum Wildlife Area, Wenatchee National Forest, and up the Teanaway. Stream corridors, talus slopes and cliffs, and stands of ponderosa pine and subalpine fir also provide habitat for birds, reptiles, amphibians, mountain lions, badgers, bears, mule deer, and more.

Since wildlife resources are abundant in the watershed and some data are more refined than others, the wildlife technical subcommittee chose six major variables to determine critical wildlife resources: summer elk habitat potential, bird source habitat, fish-bearing streams/riparian habitat, rare forest structure, mule deer winter range, and other priority habitats and species. The subcommittee then determined the appropriate weighting scheme to determine priority areas per variable. (See Appendix C for methodology.)

### Major Findings

#### Summer Elk Habitat

Elk are an important, charismatic species in the watershed. In summer (June-August), elk prefer habitats that have gentle slopes and are close to water and cover. For elk, more than 9,000 acres, mostly in the upper watershed, were identified as potential summer elk habitat based on characteristics such as proximity to water and food supply, slope, and tree cover. These lands are concentrated in the heart of the watershed, around the four DNR exchange sections (Map 5.7).

#### Bird Habitat

To capture the spectrum of important habitat types and bird species, the source habitat for four species of birds was mapped. Map 5.8 summarizes areas throughout the watershed that have the necessary habitat characteristics to support the bird species highlighted in Table 5.1 below. Not only are the bird species themselves important, the habitat types they depend on are critical in the larger ecosystem function of the watershed. Overall, 11 percent (5,437 acres) of the watershed is identified as priority bird habitat. (See Appendix C for additional details.)

#### Fish-bearing Streams and Other Riparian Areas

All the major streams and creeks in the watershed are identified as fish-bearing and/or riparian habitat (Map 5.9). Stemilt Creek and Squilchuck Creek are

Table 5.1 Representative Bird Species and Source Habitat

<b>Bird Species</b>	<b>Habitat Characteristics</b>
MacGillivray's Warbler	The water's edge (lakes, rivers, streams)
Pileated Woodpecker	Fairly dense old growth, mature forests
White-headed Woodpecker	Open forests dominated by pine trees and snags*; talus slopes
Northern Goshawk	Higher elevation old growth, mature forests

*\*Snags are standing trees that are dead or dying*



considered fish-bearing for 100 percent of their length; the mouths of the creeks provide habitat for anadromous fish for short extents until major barriers are reached. Orr Creek and Little Stemilt Creek are identified as fish-bearing for 98 and 88 percent of their length, respectively. Whether fish-bearing or not, all streams provide habitat for fish, wildlife, insects, and other riparian-dependent species for all or some part of the year.

### Rare Forest Structure

To identify rare and valuable forest types, U.S. Forest Service data was used to analyze tree size. “Rare forest type” is defined as single-story canopy (i.e., all about the same age and size) with trees that have a quadratic mean diameter<sup>11</sup> of ten inches or more. As shown in Map 5.10, these conditions are concentrated around the Beehive Reservoir on 178 acres of U.S. Forest Service land actively managed to produce these results.

### Mule Deer Winter Range

Mule deer are also an important asset to the Stemilt-Squilchuck community. Access to winter range based on slope, elevation, cover, and distance to cover was modeled for the watershed. As represented in Map 5.11, the best winter-range habitat lies in the low elevations of the watershed, on south and southwest facing slopes, within reasonable range of a food source. Approximately 1,823 acres are considered “best” for winter range for mule deer (see Appendix C for model methodology). Those areas are concentrated in the lower elevations of the Squilchuck drainage and Stemilt Creek.

### Other Priority Habitats and Species (WDFW)

Washington Department of Fish and Wildlife (WDFW) data for priority habitats and species was also used for the fish and wildlife analysis to capture habitats and species not already represented through other modeling. Habitats included and shown on Map 5.12 include talus slopes, cliffs and bluffs, bald

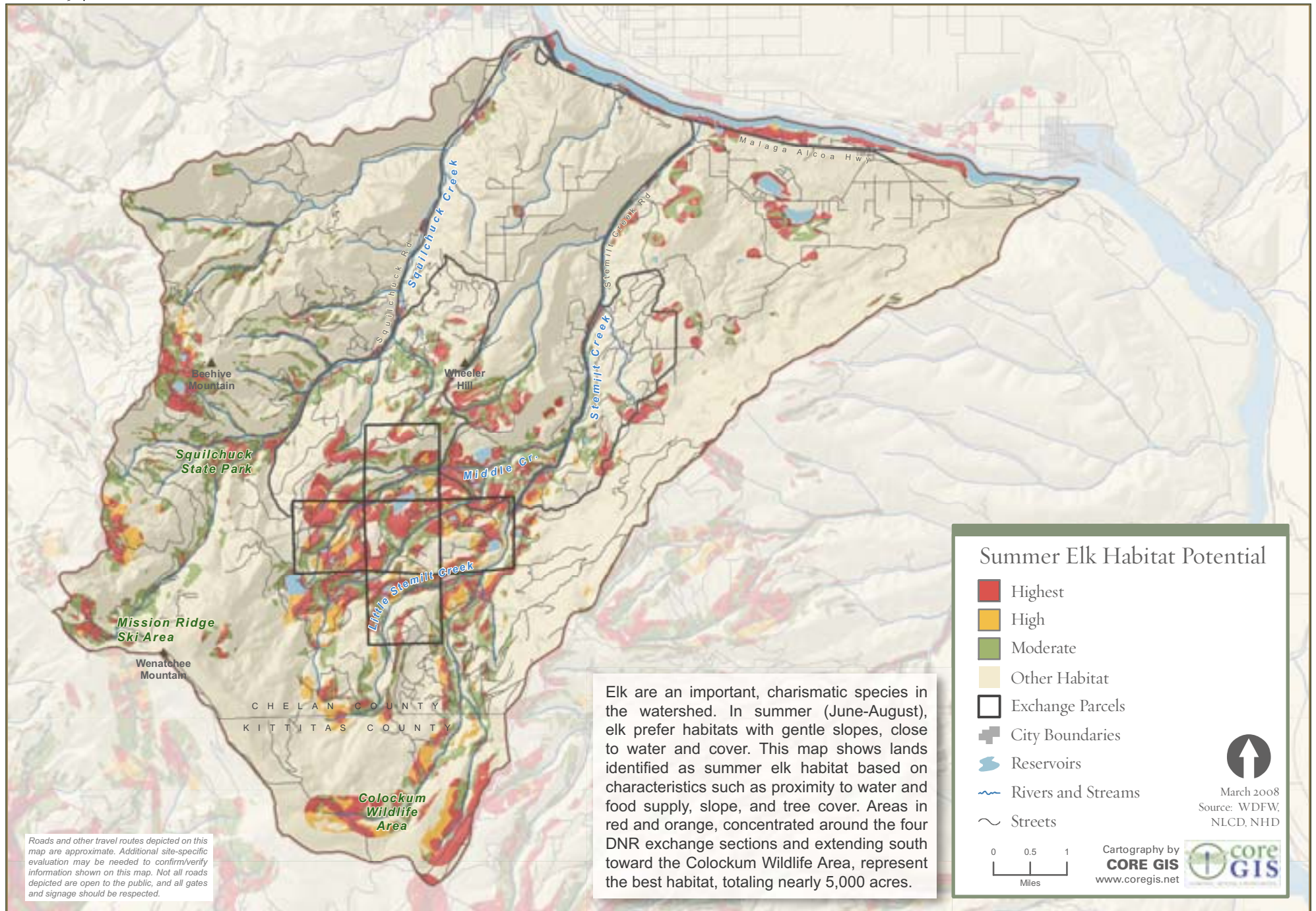
eagle, riparian zones, wood duck, waterfowl concentrations, cavity-nesting ducks, and wetlands. Overall, these areas cover nearly eight percent (3,937 acres) of the watershed.

### The “Best of the Best”

Combining the various habitat and species information discussed above, a “best of the best” map was created to capture the best habitat that represents the important criteria identified by the wildlife technical subcommittee. Overall, approximately 18,805 acres—38 percent of the watershed—are considered very important for fish and wildlife. As shown on Map 5.13, these areas are spread throughout the watershed.

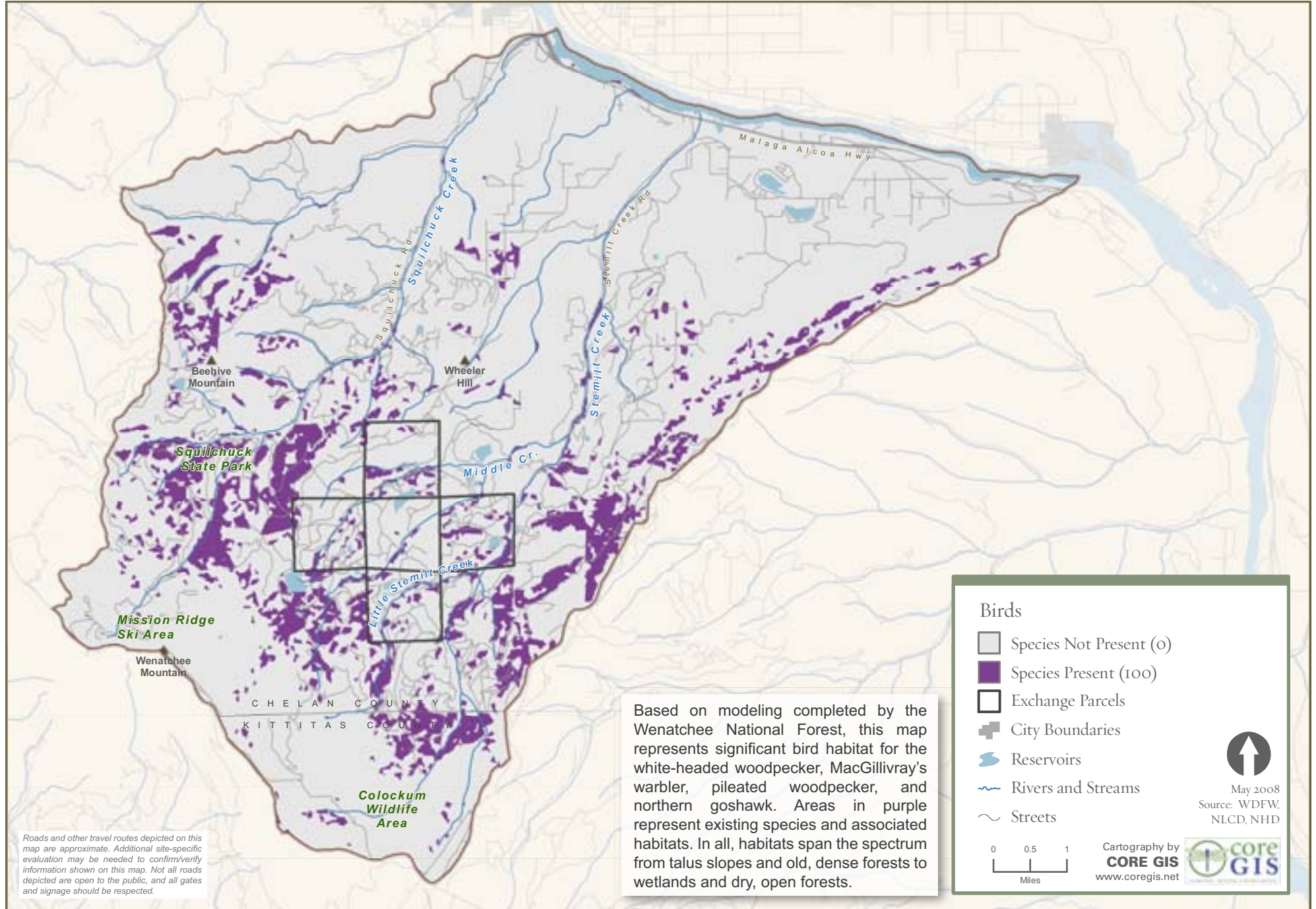
<sup>11</sup> The Quadratic Mean Diameter (QMD) has a long history of use in forestry. The QMD is the diameter of a tree of average basal area. It is computed by considering individual tree diameter, total basal area, and the tree expansion factor. The measurement gives greater weight to large trees and is more stable for modeling purposes, as it correlates better to stand density.

# MAP 5.7 WILDLIFE RESOURCES: SUMMER ELK HABITAT MODEL RESULTS



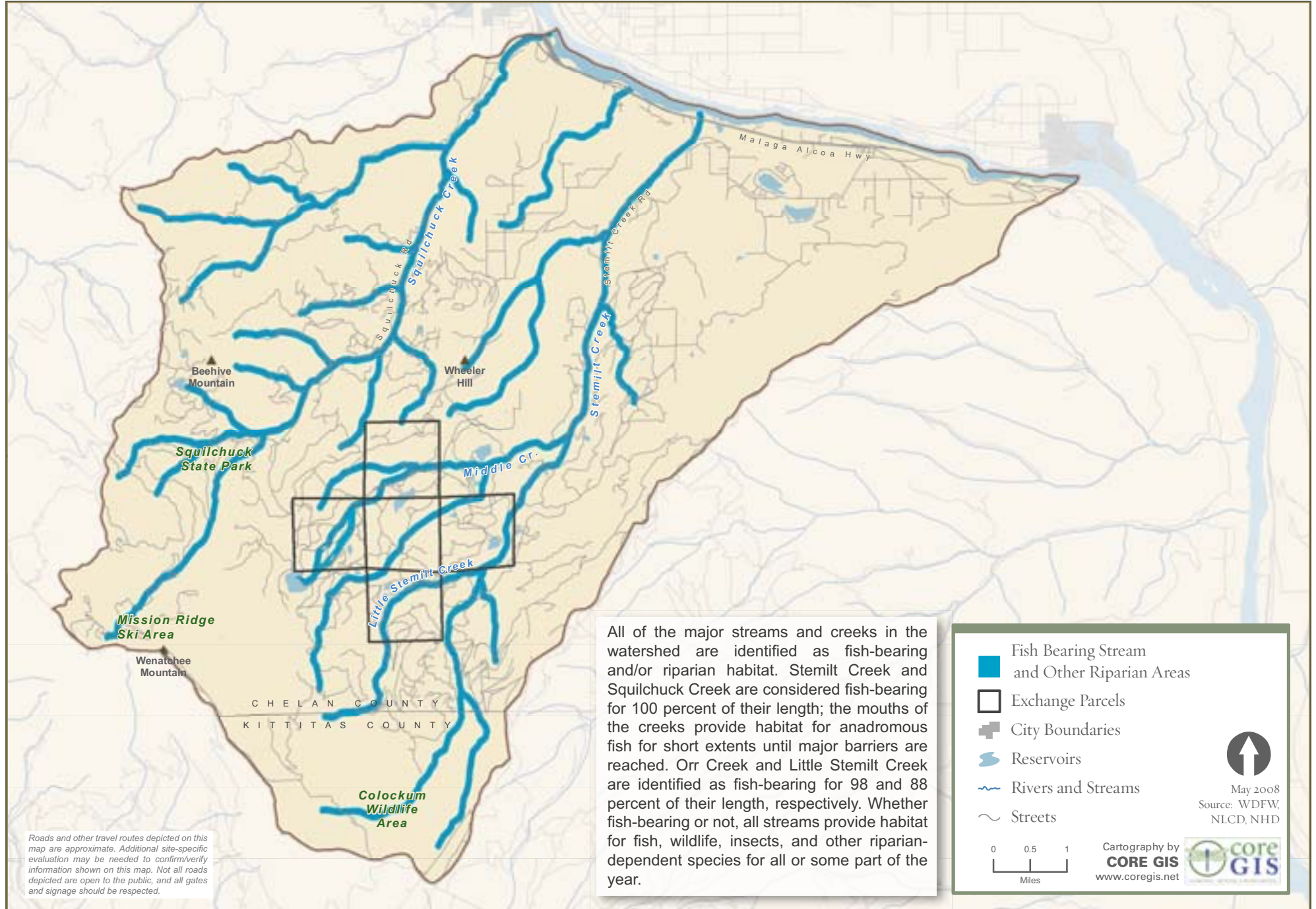


# MAP 5.8 WILDLIFE RESOURCES: SIGNIFICANT BIRD HABITAT





# MAP 5.9 WILDLIFE RESOURCES: FISH-BEARING STREAMS AND OTHER RIPARIAN AREAS

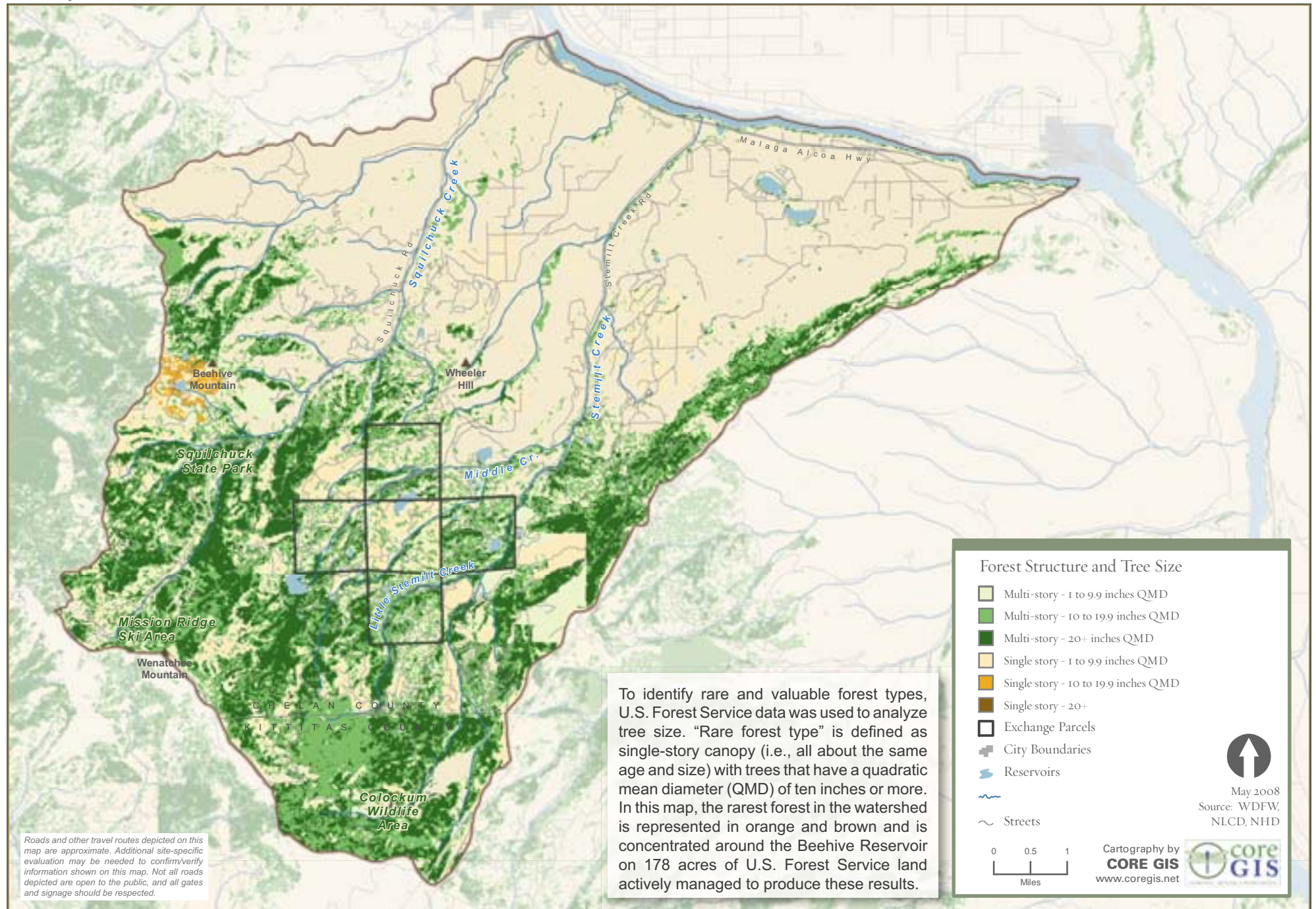


All of the major streams and creeks in the watershed are identified as fish-bearing and/or riparian habitat. Stemilt Creek and Squilchuck Creek are considered fish-bearing for 100 percent of their length; the mouths of the creeks provide habitat for anadromous fish for short extents until major barriers are reached. Orr Creek and Little Stemilt Creek are identified as fish-bearing for 98 and 88 percent of their length, respectively. Whether fish-bearing or not, all streams provide habitat for fish, wildlife, insects, and other riparian-dependent species for all or some part of the year.

Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.

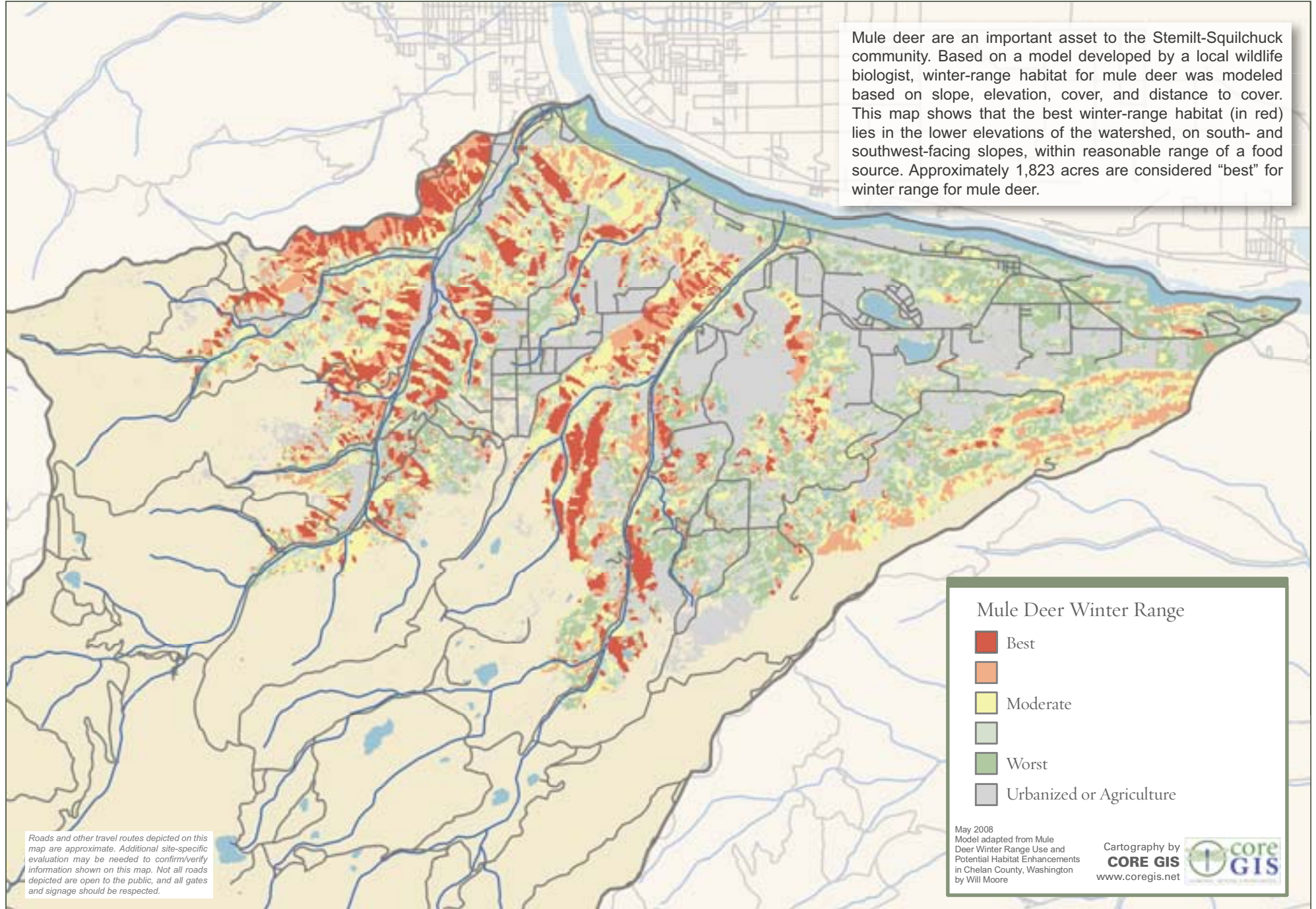


# MAP 5.10 WILDLIFE RESOURCES: FOREST STRUCTURE AND TREE SIZE



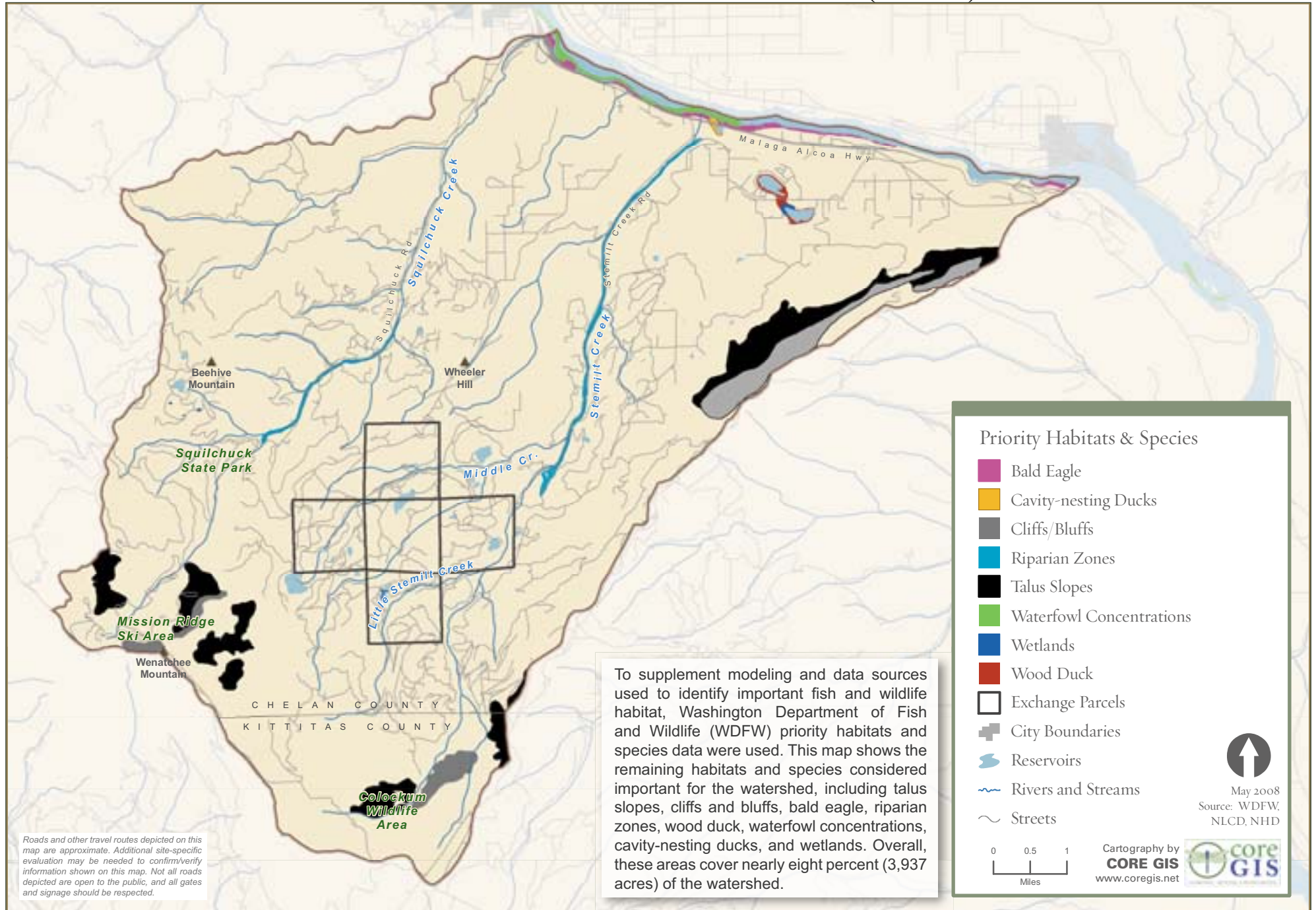


# MAP 5.II WILDLIFE RESOURCES: MULE DEER WINTER RANGE MODEL RESULTS





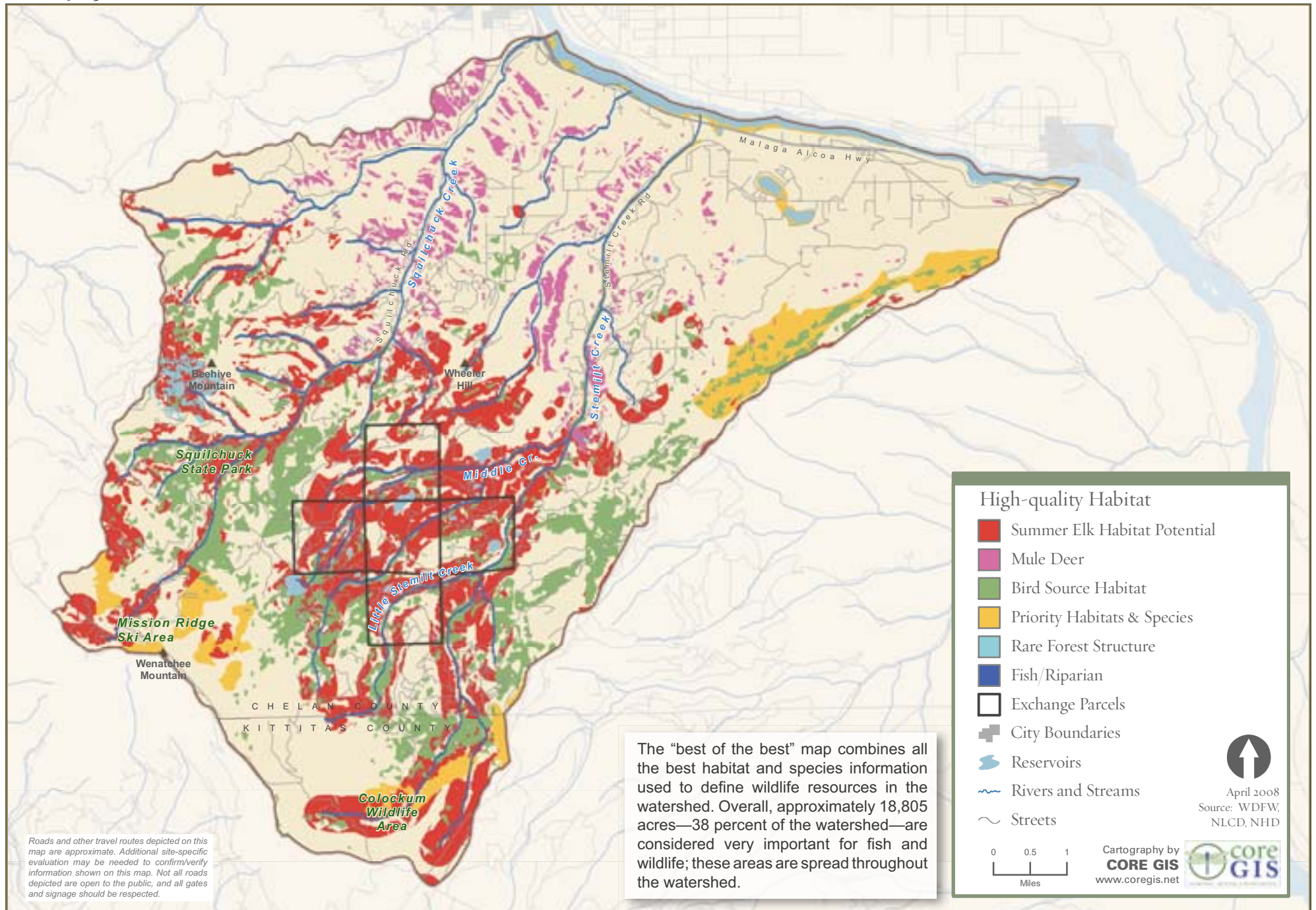
# MAP 5.12 WILDLIFE RESOURCES: OTHER PRIORITY HABITATS AND SPECIES (WDFW)



Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.



# MAP 5.13 WILDLIFE RESOURCES: THE “BEST OF THE BEST”



Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.

The “best of the best” map combines all the best habitat and species information used to define wildlife resources in the watershed. Overall, approximately 18,805 acres—38 percent of the watershed—are considered very important for fish and wildlife; these areas are spread throughout the watershed.

**High-quality Habitat**

- Summer Elk Habitat Potential
- Mule Deer
- Bird Source Habitat
- Priority Habitats & Species
- Rare Forest Structure
- Fish/Riparian
- Exchange Parcels
- City Boundaries
- Reservoirs
- Rivers and Streams
- Streets

April 2008  
Source: WDFW, NLCD, NHD

Cartography by  
**CORE GIS**  
www.coregis.net



### Goal 3: Maintain And Enhance Recreational Access

The variety of habitats and reservoirs, miles of rugged road and open forest, and proximity to Wenatchee all make the Stemilt-Squilchuck watershed a destination for recreation. Hunters, hikers, bikers, anglers, equestrians, skiers, snowmobilers, and others use the area throughout the year.

To accurately capture recreational activity in the watershed, recreation data was gathered from public agencies such as the U.S. Forest Service and Washington State Parks. Other trails, camping sites, key access points, and potential recreation opportunities were mapped based on local knowledge and usage. The recreation technical subcommittee agreed that mapping recreational activity to the best extent possible was a priority.

#### Major Findings

Although generally dispersed, recreation is concentrated in the upper portions of the watershed, with major access points off the Stemilt Basin Loop Road

and Squilchuck State Park (Map 5.14). The watershed is used for recreation year-round, with hunting season starting in the fall; snowmobile and other winter recreation increasing once enough snow falls; and biking, hiking, wild-life viewing, camping, fishing, and other activities starting in the spring and continuing through summer and early fall.

According to traffic-counter data provided by the Washington Department of Natural Resources and Washington Department of Fish and Wildlife, motorized vehicle trips into the upper watershed off Stemilt Loop Road spike in the spring and fall, as more people use the area for fishing in the spring and hunting in the fall. Table 5.2 summarizes the trips captured by all traffic counters in the watershed (see Map 5.14 for the approximate location of counters). Overall, the statistics show the area is heavily used by recreational vehicles. The community estimates all-terrain vehicle use has increased nearly four-fold in the last two years.<sup>12</sup>

Table 5.2 Traffic Counter Summary

Traffic Counter	Start/End Date	Total Count	Average/Month	Peak Month
Upper Basin Loop Road	4/6 - 11/20/2007	10,004	1,434	May (3,073)
Lily Lake Road	4/6 - 11/20/2007	7,384	923	May (1,988)
Orr Creek Road	4/6 - 11/20/2007	9,123	1,140	May (2,353)
Schaller Road*	8/2006 - 3/2008	5,344	267	October (892, 863)
Lily Lake Road**	1/15 - 3/9/2008	2,095	N/A	N/A

\*Count number has been divided by two, accounting for vehicles entering and exiting

\*\* This counter was installed to track snowmobile use during the winter months

<sup>12</sup> Informal estimate provided by Stemilt Recreational Technical Subcommittee, March 9, 2008.





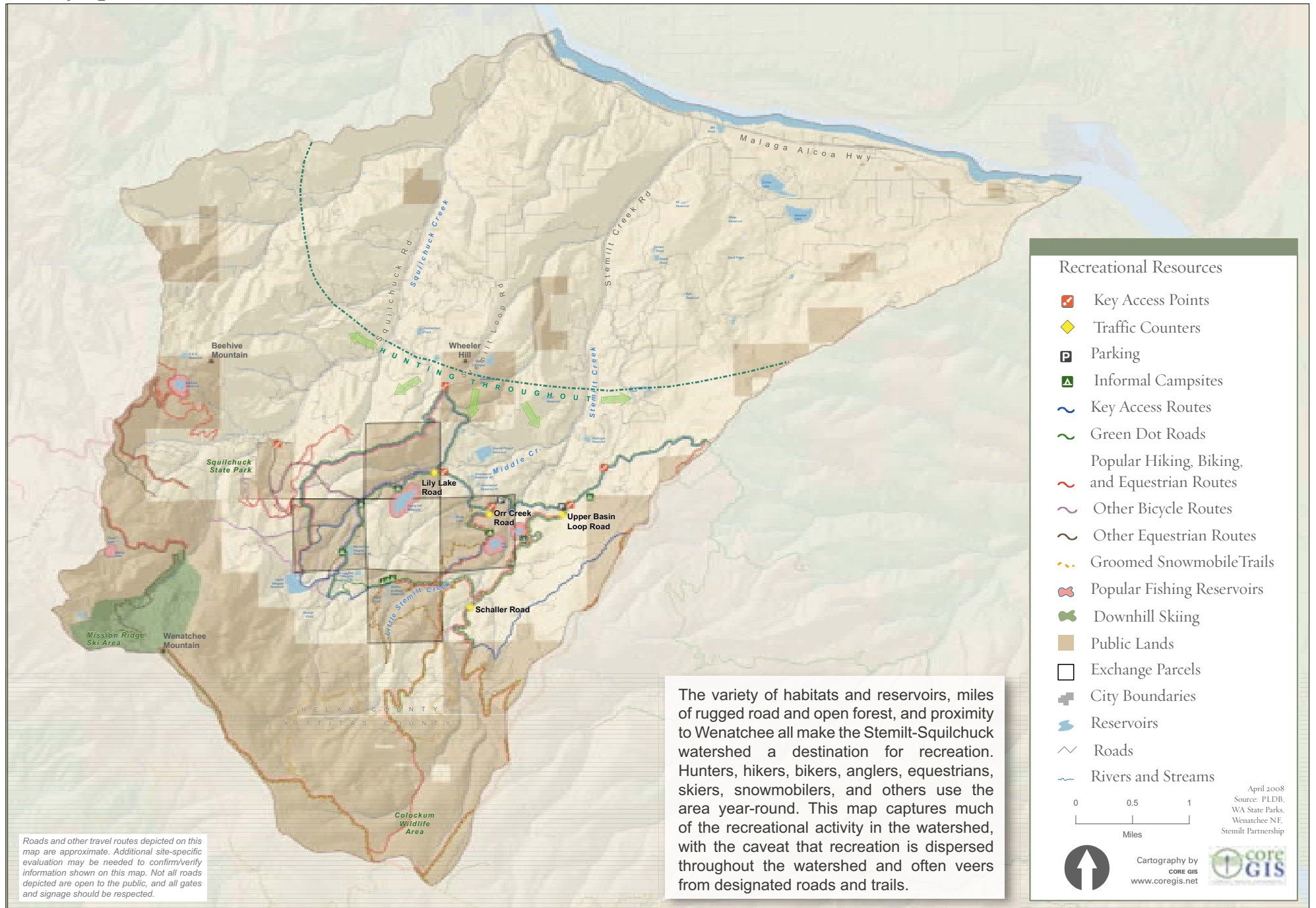
Laurence McCracken,  
Wenatchee Valley Fly  
Fishers, tries his luck at  
Spring Hill Reservoir

Fishing is also a popular activity in the watershed, with Beehive and Spring Hill reservoirs seeing the most activity throughout the fishing season. Activity decreases in July, once the catch-and-release season begins. In 2008, an estimated total 60,000 trout were planted in the major fishing reservoirs (Beehive, Clear Lake, Lily Lake, and Springhill).

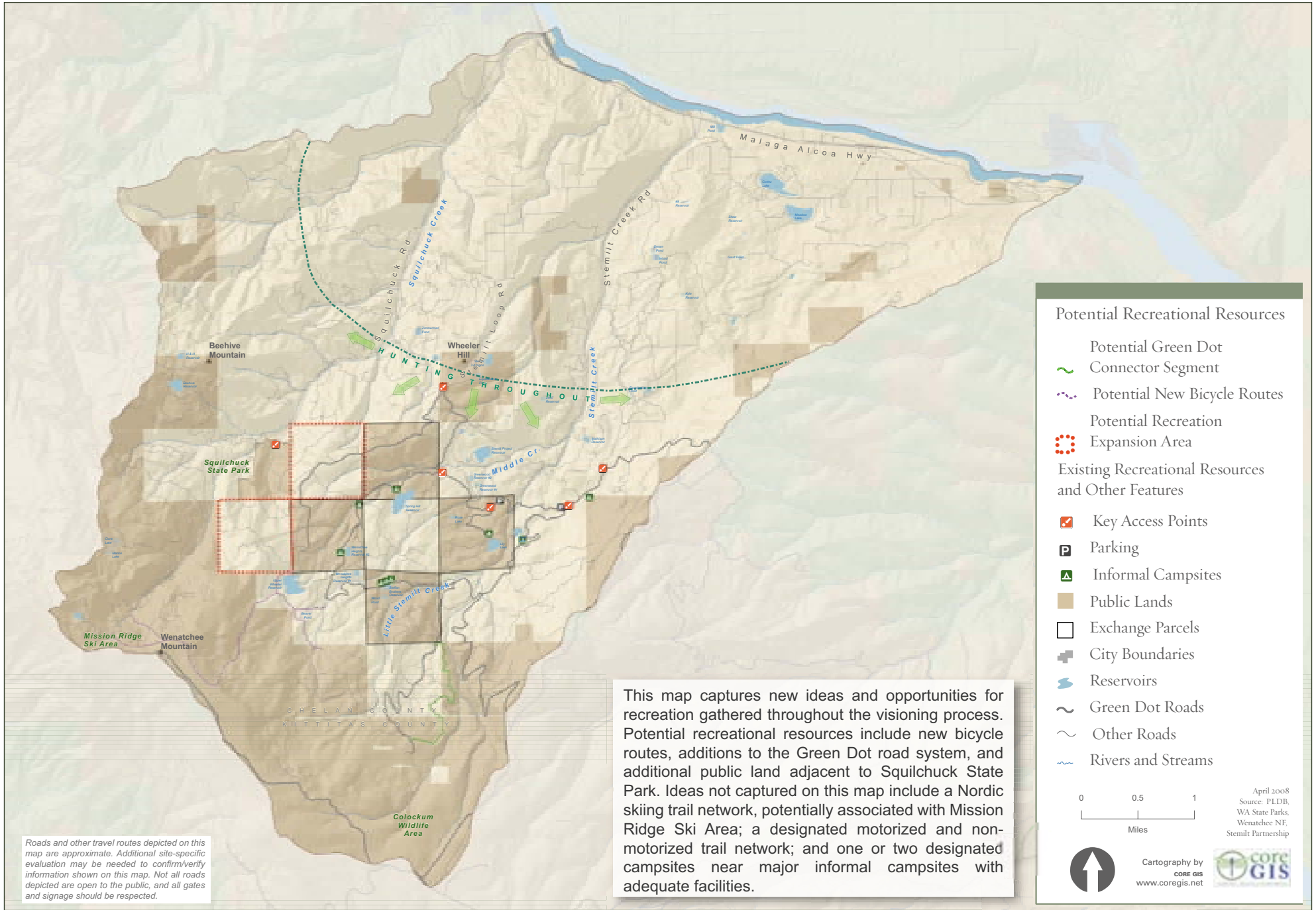
Other activities, such as hiking, biking, hunting, horseback riding, and wildlife viewing are hard to capture specifically on a map, but major access roads, popular trails, informal campsites, and other recreational resources are reflected on Map 5.14. Overall, the map represents the importance of public lands to the recreational community, including Forest Service lands near Beehive Reservoir, Squilchuck State Park, and the four DNR sections in the heart of the upper watershed. Public lands along the southern boundary of the watershed provide a critical link to the public land network in Kittitas County.

By all accounts, recreational activity is on the rise in the watershed, as more people move to and visit the area. To capture ideas and opportunities presented throughout the visioning process, Map 5.15 represents potential recreational resources including new bicycle routes, additions to the Green Dot road system, and additional public land adjacent to Squilchuck State Park. Ideas not captured on this map include a Nordic skiing trail network, potentially associated with Mission Ridge Ski and Snowboard Resort; a designated motorized and non-motorized trail network; and one or two designated campsites near major informal campsites with adequate facilities.

# MAP 5.14 EXISTING RECREATIONAL RESOURCES



# MAP 5.15 POTENTIAL RECREATIONAL RESOURCES





## Mapping Agricultural Resources

Protecting or sustaining agricultural resources was not an explicit goal for the Stemilt-Squilchuck Community Vision. It was determined by the Partnership that water protection was a priority because without water, there would be no agriculture. Nonetheless, for the final plan agricultural resources were mapped using data developed as part of the Stemilt-Squilchuck Watershed Plan.

### Major Findings

More than 5,000 acres of the watershed are in tree-orchard production, approximately 85 percent of which are cherry, with the remainder apples, pears, and other tree fruit (Map 5.16). The watershed is unique in that cherries are cultivated at some of the highest elevations in the state, producing late-season, award-winning cherries.

A significant portion of the land in the Stemilt-Squilchuck watershed is considered “prime,” “unique,” or “farmland of statewide significance” based on the quality of the soils.<sup>13</sup> Map 5.17 shows more than 4,700 acres of farmland of statewide significance, 6,000 acres of unique farmland, and 1,100 acres of prime farmland (if irrigated) based on soil data from the Natural Resource Conservation Service.<sup>14</sup> These lands are protected by federal and state legislation and require an additional level of scrutiny when faced with proposals that may negatively impact resource values.<sup>15</sup>

<sup>13</sup> The Natural Resources Conservation Service (NRCS) uses United States Department of Agriculture guidelines to define and identify farmland across the United States. NRCS defines “prime” farmland as “land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses (that land could be cropland, pastureland, rangeland, forestland, or other land, but not urban built-up land or water).” “Unique” farmland is defined as “land other than prime farmland that is used for the production of specific high value food and fiber crops.” “Farmland of statewide importance” is defined as land important for “the production of food, feed, fiber, forage, and oil seed crops.” These lands include areas with nearly prime farmland that, when treated and managed with acceptable farming methods, may economically produce high-yield crops. (7CFRChVI §657.5)

<sup>14</sup> This acreage includes all land in the watershed, including farm and forestland.

<sup>15</sup> In Washington state, the State Environmental Policy Act (SEPA), modeled after the National Environmental Policy Act, requires all state and local governments within the state to “utilize a systematic, interdisciplinary approach which will ensure the integrated use of the natural and social sciences and the environmental design arts in planning and decision making which may have an impact on man’s environment” and ensure that “. . . environmental amenities and values will be given appropriate consideration in decision making along with economic and technical considerations. . .” (RCW 43.21C.030(2)(a) and (2)(b)). Chapter 13.04 of the Chelan County code outlines the SEPA process, requirements, and thresholds for Chelan County.

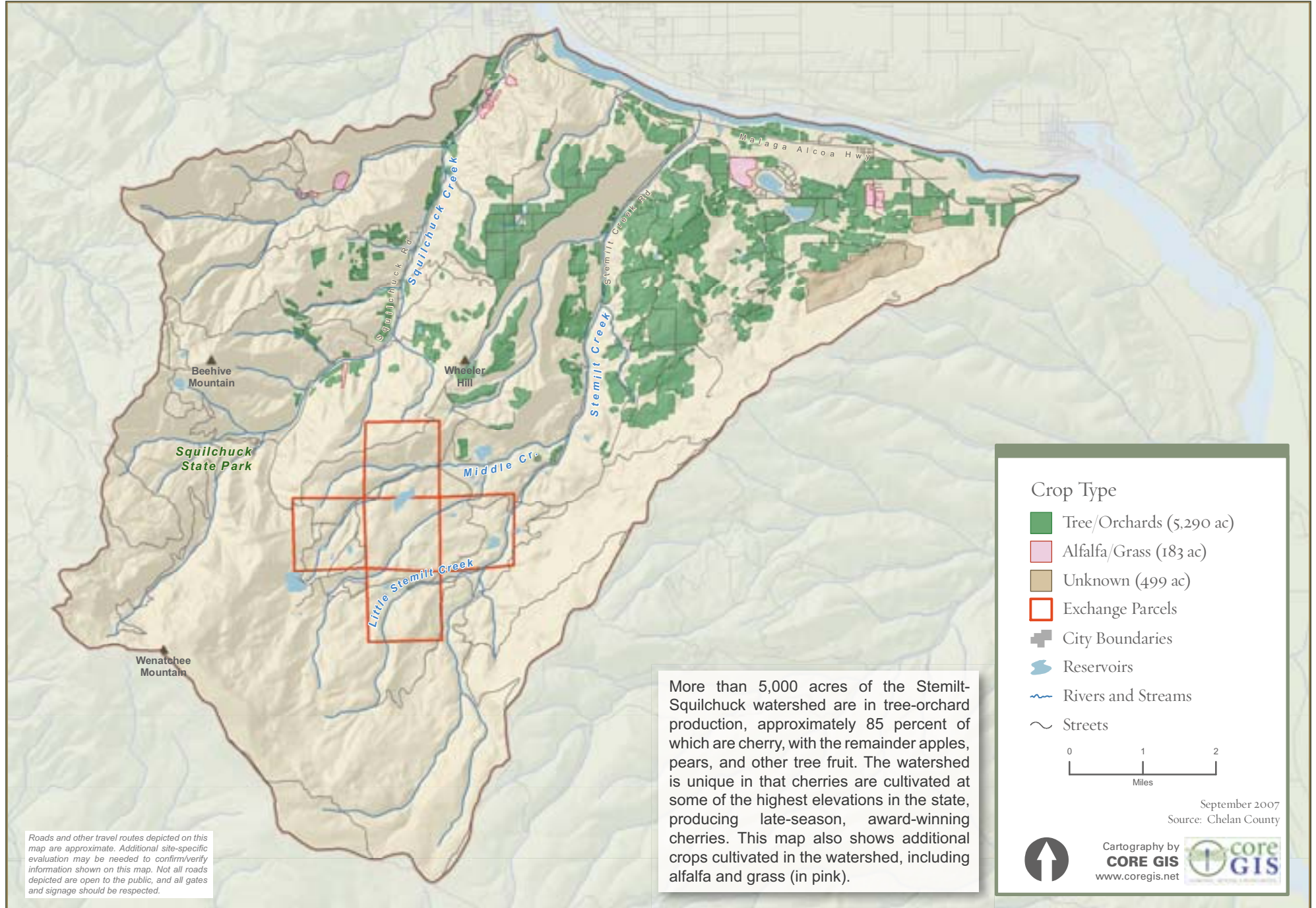
In Washington state, the Growth Management Act requires cities and counties to designate resource lands, including agricultural lands of long-term significance. In Chelan County, much of the land identified as of statewide importance and/or of unique importance is zoned “commercial agriculture” or “commercial forestry” in the Stemilt-Squilchuck watershed (see Appendix D). These lands are designated as such to ensure the protection and preservation of existing and future commercial agriculture or forestry activities.<sup>16</sup>



Cherry blossoms

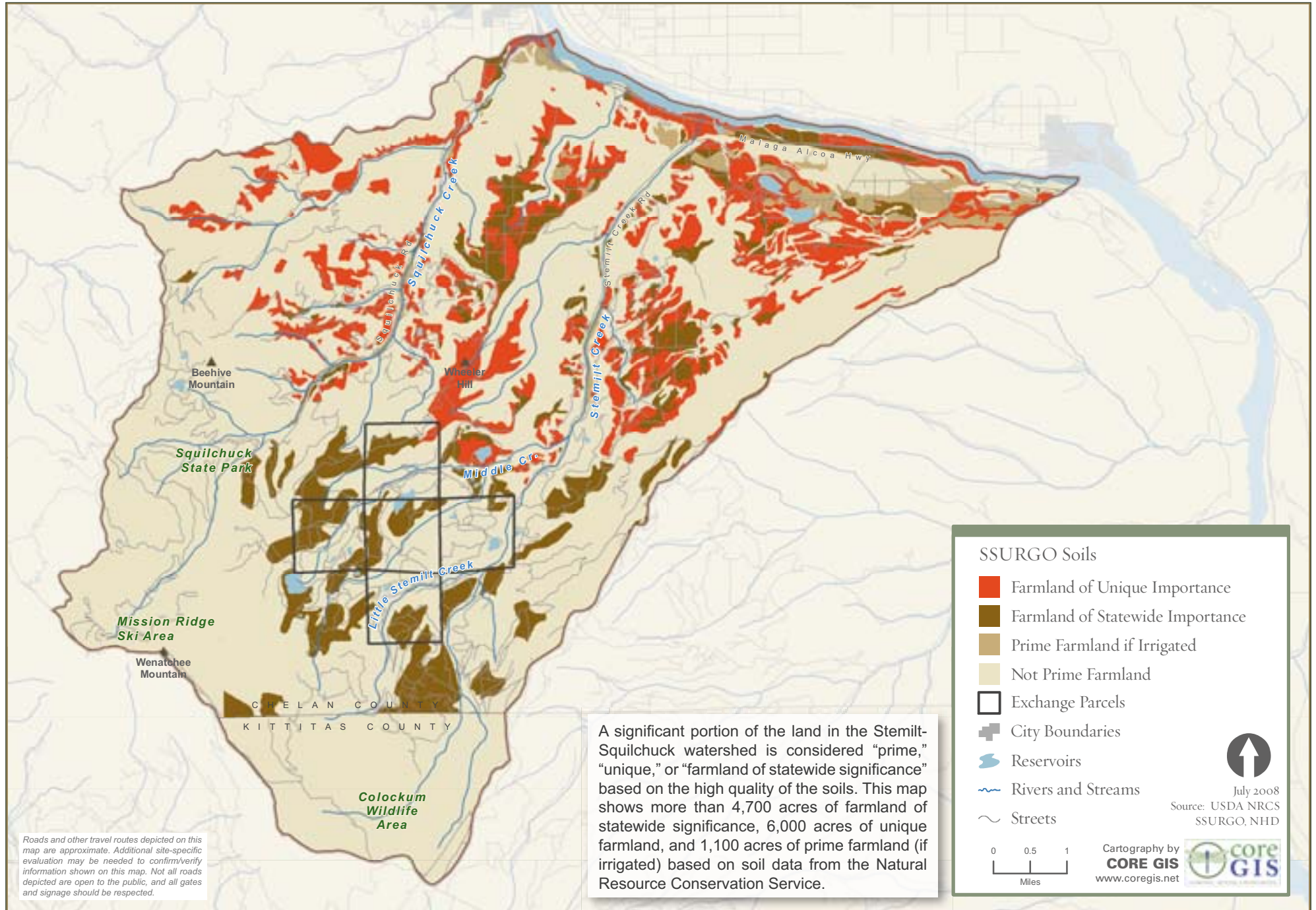
<sup>16</sup> Chapter 11.06 of the Chelan County code defines the purpose and appropriate uses for these zoning designations.

# MAP 5.16 AGRICULTURAL RESOURCES: CROP TYPE





# MAP 5.17 AGRICULTURAL RESOURCES: SOILS





## Mapping Development Potential

Although promoting complementary development is part of the overall vision for the Stemilt-Squilchuck watershed, it was determined by the Partnership not to make it an explicit goal. However, given growing development pressures and the sensitive values of water, wildlife, and recreational access, getting a sense of the extent of existing development and future development potential is a worthwhile mapping exercise.

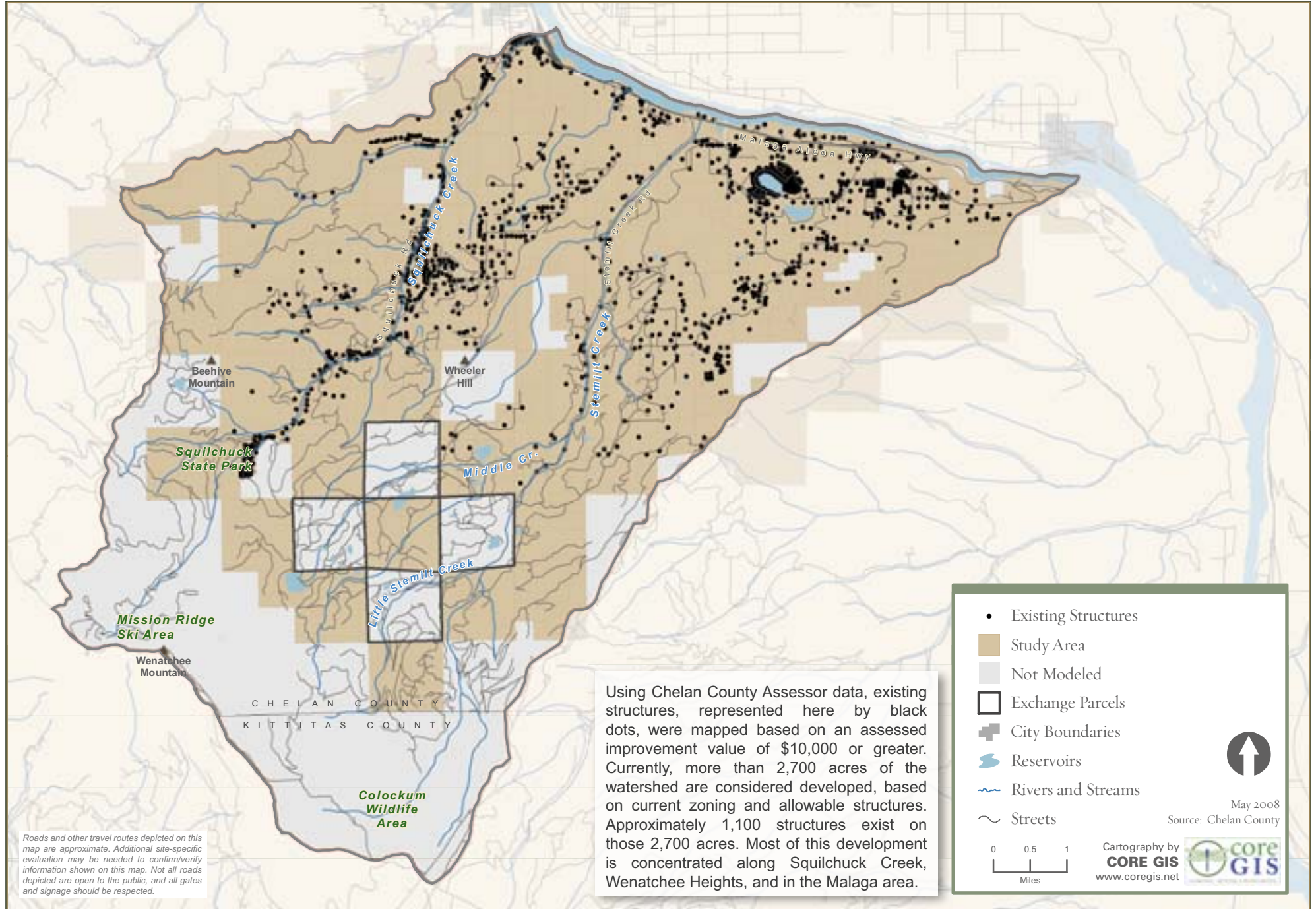
Using Chelan County Assessor data, existing development was mapped based on an assessed improvement value of \$10,000 or greater (Map 5.18). Future development was then mapped based on development potential allowed under current zoning. Each existing structure and potential structure was then mapped randomly (within the corresponding parcel), as shown in Map 5.19.

### **Major Findings**

Currently, more than 2,700 acres of the watershed are considered developed, based on current zoning and allowable structures. Approximately 1,100 structures exist on those 2,700 acres. Most of this development is concentrated along Squilchuck Creek, Wenatchee Heights, and in the Malaga area (Map 5.18). According to current zoning, another 3,500 acres are considered developable, meaning that land can be built on based on today's land-use regulations. Of the lands that are developable, more than 750 parcels can be divided based on current zoning; this could impact more than 30,000 acres of land. If structures were randomly placed on those acres of land, the result would be similar to what is represented in Map 5.19.

Although Map 5.19 may seem to represent a virtually impossible development pattern for the watershed, it may not seem so impossible 50 years from now. What is important to note are the lands of high community value—such as those in the upper watershed—and their potential for development based on today's zoning. Such development could significantly alter community character and impact natural resource value of some lands.

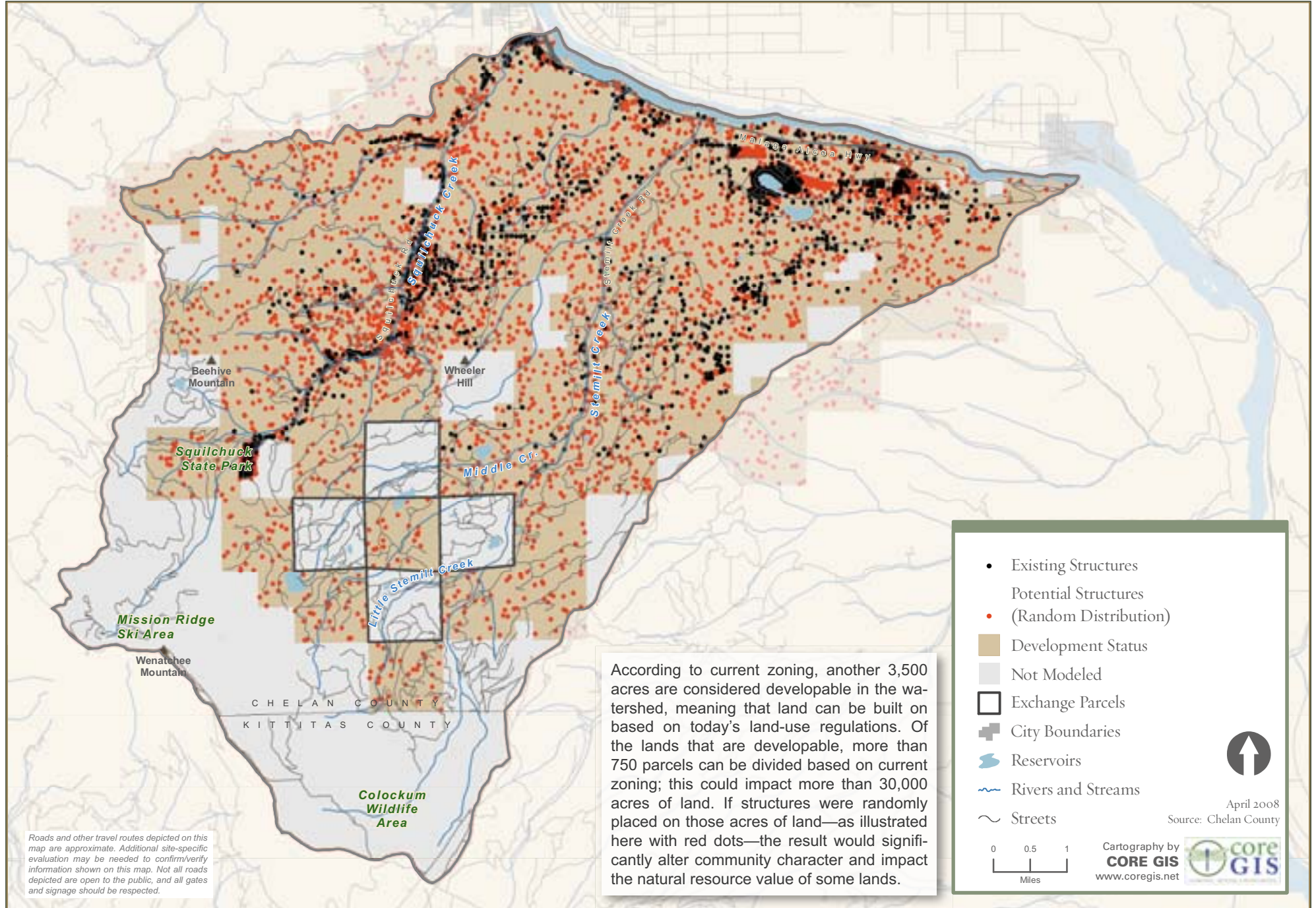
# MAP 5.I8 DEVELOPMENT: EXISTING STRUCTURES



Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.



# MAP 5.19 DEVELOPMENT: EXISTING AND POTENTIAL STRUCTURES







Don Jagla, working in the orchard with his dog Rowdy



## 6. COMMUNITY VISION TO CONCEPTUAL PLAN

The final stage of any community vision is developing a plan that will act as a foundation for future community planning efforts and provide a springboard for action. For the Stemilt-Squilchuck Community Vision, a conceptual plan—stressing water protection, wildlife conservation, and maintenance of recreational access—is presented in this chapter. The plan is intended to guide future land-use considerations in the watershed and establish a framework for action and decision making that is supported and understood by the community.

### Guiding Principles and Values

The plan is grounded in and guided by the following core community principles and values identified through the visioning process:

- Protection of water resources is a paramount concern and goal of the community, and integral to sustaining the agricultural economy and heritage of the area;
- Conservation of wildlife resources—including essential habitat—is a high priority supported by a variety of interests and critical to maintaining the way of life in the community;
- Maintenance and enhancement of recreational access to public lands and resources benefits the entire community and supports a variety of recreational interests;
- Future development in the watershed complies with existing and future regulations, complements existing development, and does not constrain the common resources of water, wildlife, and recreation; and
- Local community support and input are critical consideration in future development and management decisions in the watershed.

These principles form the foundation of the conceptual plan and are intended to play a role in future decision making that concerns land—and the common resources of water, wildlife, and recreation—in the Stemilt-Squilchuck watershed.

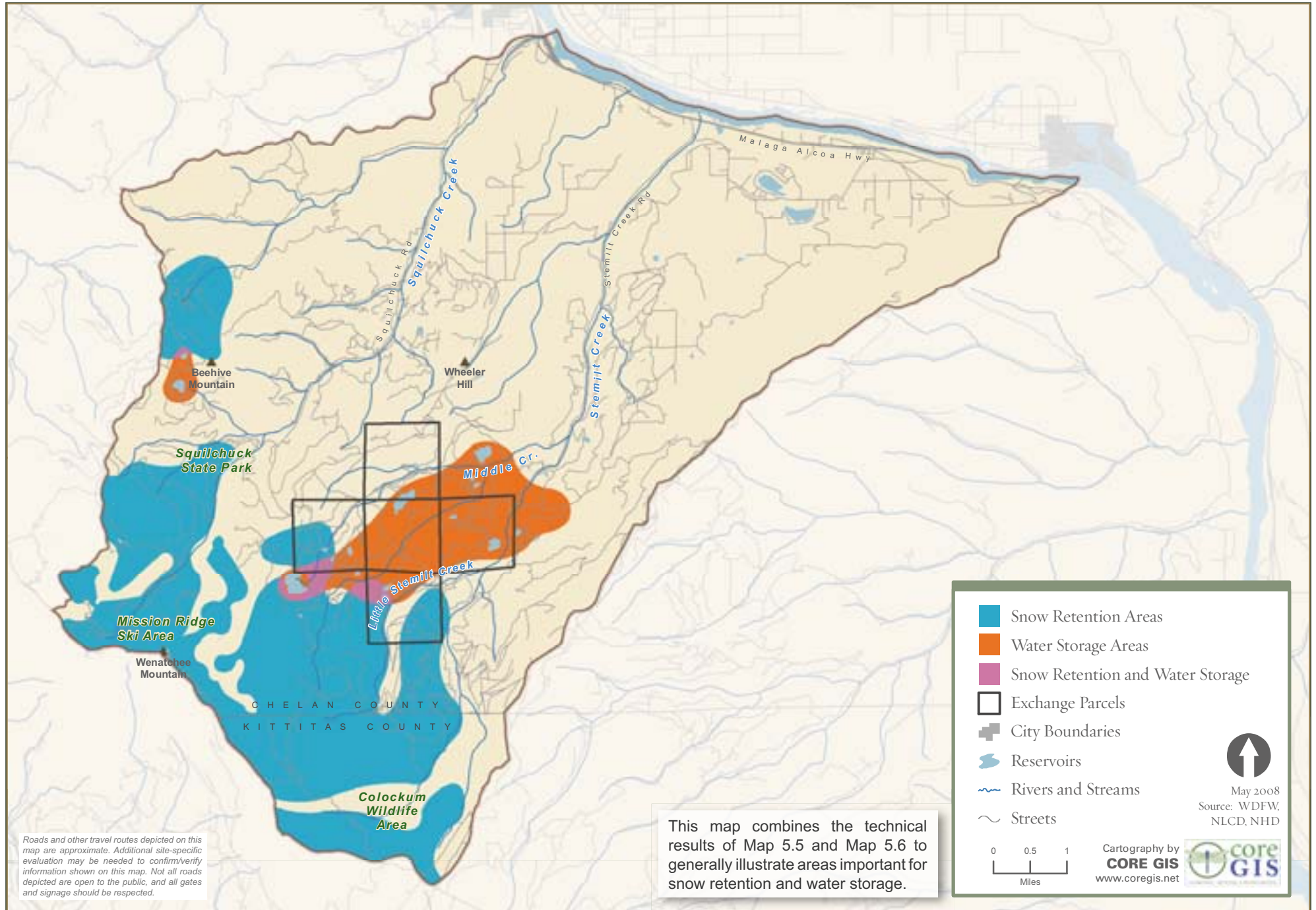
### Components of the Conceptual Plan

#### *Water Resources*

The water resources inventory and modeling identified areas of high snowpack retention and water storage potential. For the conceptual plan these areas are generalized, as represented in Map 6.1. Because protection of water resources is of paramount concern to the community and essential to the agricultural economy, key considerations for the future of these areas include:

- Lands critical for water production are best managed in public ownership in close coordination with the irrigation districts;
- Management of water production lands should promote sustainable harvest and forestry practices that minimize soil compaction and sedimentation of water sources but also reduce wildfire hazards; and
- For lands in private ownership, conservation easements, which limit development, may be an effective tool for water-resource protection.

# MAP 6.1 WATER RESOURCES: SNOW RETENTION AND WATER STORAGE AREAS



Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.

This map combines the technical results of Map 5.5 and Map 5.6 to generally illustrate areas important for snow retention and water storage.



## **Wildlife Resources**

The wildlife resources inventory and modeling identified areas considered “the best of the best” (Map 6.2). In other words, the best of the wildlife habitat identified as important is captured. Since elk habitat is of particular importance to the Stemilt Partnership, areas identified as “highest” summer elk habitat potential are defined as “Primary Wildlife and Habitat Areas.” Areas along major creeks and streams are also captured in this category. All other important wildlife areas (e.g., mule deer winter range, bird habitat, etc.) are defined as “Secondary Wildlife and Habitat Areas.”

Key considerations for the future of Primary and Secondary Wildlife and Habitat Areas include:

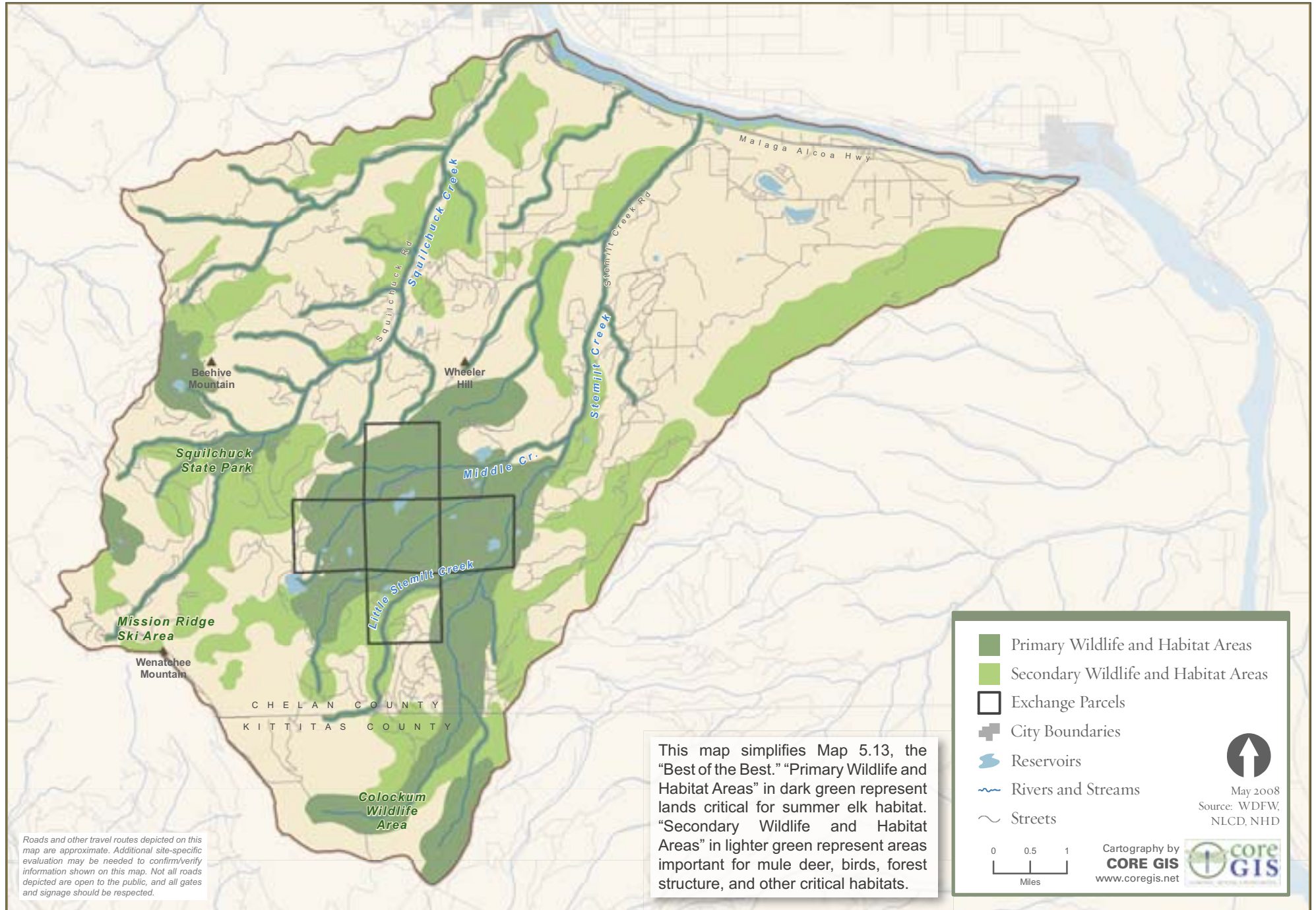
- Lands identified as critical summer elk habitat (most of the Primary Wildlife and Habitat Areas) are best managed in public ownership to maintain calving grounds and transitional range that connects winter range on the Colockum to summer habitat that extends to the Cascade Crest;
- Seasonal closures to certain activities (e.g., motorized recreation, mountain biking, skiing, etc.) should be considered as a management tool on public land during sensitive seasons for wildlife;
- For lands in private ownership, conservation easements, which limit development and provide for sustainable harvest and forestry practices that enhance habitat, may be an effective tool for wildlife resources protection;

- All development proposals should require consultation with the Chelan County Natural Resources Department, the Stemilt Partnership, and relevant land-management agencies to minimize impact on wildlife resources;
- Open-space design<sup>17</sup> should be encouraged for new development, to minimize impact on wildlife resources and protect sensitive environmental features (e.g., wetlands, stream banks, etc.); and
- Land exchange and land acquisition should also be considered as tools to protect Primary and Secondary Wildlife and Habitat Areas.

---

<sup>17</sup> Open-space design involves concentrating development in a compact area of the site in a manner that complements landscape features while leaving the remainder of the site as open space or natural area. This type of design is also referred to as cluster or conservation development.

# MAP 6.2 WILDLIFE RESOURCES: WILDLIFE AND HABITAT AREAS





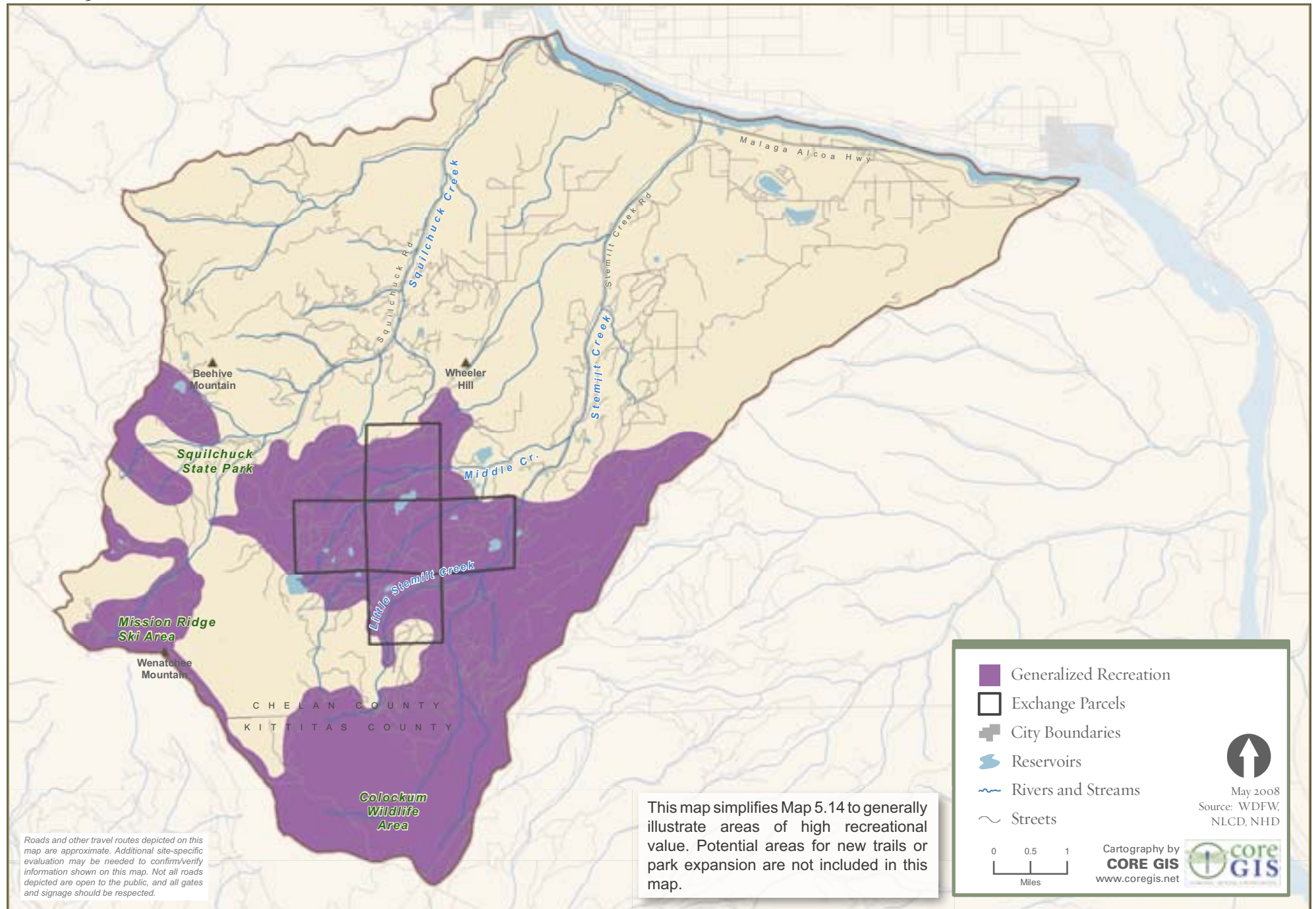
## **Recreational Resources**

Although much of recreation takes place on defined trails and roads, many activities, such as hunting, are dispersed throughout the upper watershed, making it challenging to capture the true impact of recreation in the area. To generalize the core areas of activity identified through the recreational resource inventory, “Recreational Resource Areas” are defined primarily in the upper watershed (Map 6.3).

Key considerations for the future of Recreational Resource Areas include:

- Designation and development of user trails (e.g., motorized and non-motorized) may direct some recreational activities to areas more appropriate for heavy recreational use and could build on trail network plans for the Wenatchee Valley. All new trails should support the Stemilt-Squilchuck Community Vision and consider impacts on water and wildlife resources;
- Ultimate ownership of lands in the upper watershed will dictate allowable recreational activities in the area. Any management plans developed should address the type and extent of allowed recreational activity, working closely with local user groups, and consider seasonal-use restrictions in areas of high sensitivity;
- More enforcement of existing regulations should be facilitated through private-public partnerships (e.g., “Eyes in the Woods” program with Wenatchee Sportsmen’s Association) led by the county and public land-management agencies. A user-fee system could generate additional funds to bolster an enforcement program. The Partnership could also provide an appropriate forum to discuss stiffer penalties for regulation violations;
- Washington State Parks should be considered a viable partner for future land conservation efforts adjacent to Squilchuck State Park;
- Future development plans for Mission Ridge Ski and Snowboard Resort should be thoroughly vetted through a feasibility study, completed in close coordination with Chelan County, the Stemilt Partnership, the U.S. Forest Service, and WDFW; and
- For lands in private ownership, innovative site design or access/conservation easements could accommodate a public trail system or maintain access to public lands.

# MAP 6.3 RECREATIONAL RESOURCE AREAS





## Final Conceptual Plan

Using existing agricultural and residential development as a base, maps of water, wildlife, and recreational resources combine into a final conceptual plan for the watershed (Map 6.4). Viewing the components together provides the opportunity to see where the pieces overlap and how they interact.

In the lower elevations of the watershed, agricultural resources and residential development dominate, concentrated in the Squilchuck Valley, Wenatchee Heights, and the Stemilt Hill-Malaga areas. Lower elevations also provide critical mule deer winter range. Moving farther south and up into the watershed, lands important for summer elk habitat become predominant, as well as forest structure and characteristics such as old stands of ponderosa pine and subalpine fir critical for a variety of species. Areas high in the watershed to the south hold snow the longest and capture the necessary water to support life in the watershed. Areas of future water storage potential surround existing reservoir systems near Beehive Reservoir and Clear and Lily lakes. Finally, recreation is concentrated across the upper watershed and overlaps with water and wildlife resource priorities.

The final composite map gives a sense of the importance of lands in the upper watershed to water, wildlife, and recreational resources. While the majority of these lands are in public ownership, some critical lands are not. Ownership questions loom over the four DNR sections and lands owned by Longview Fibre.

Some overall key considerations for the watershed include:

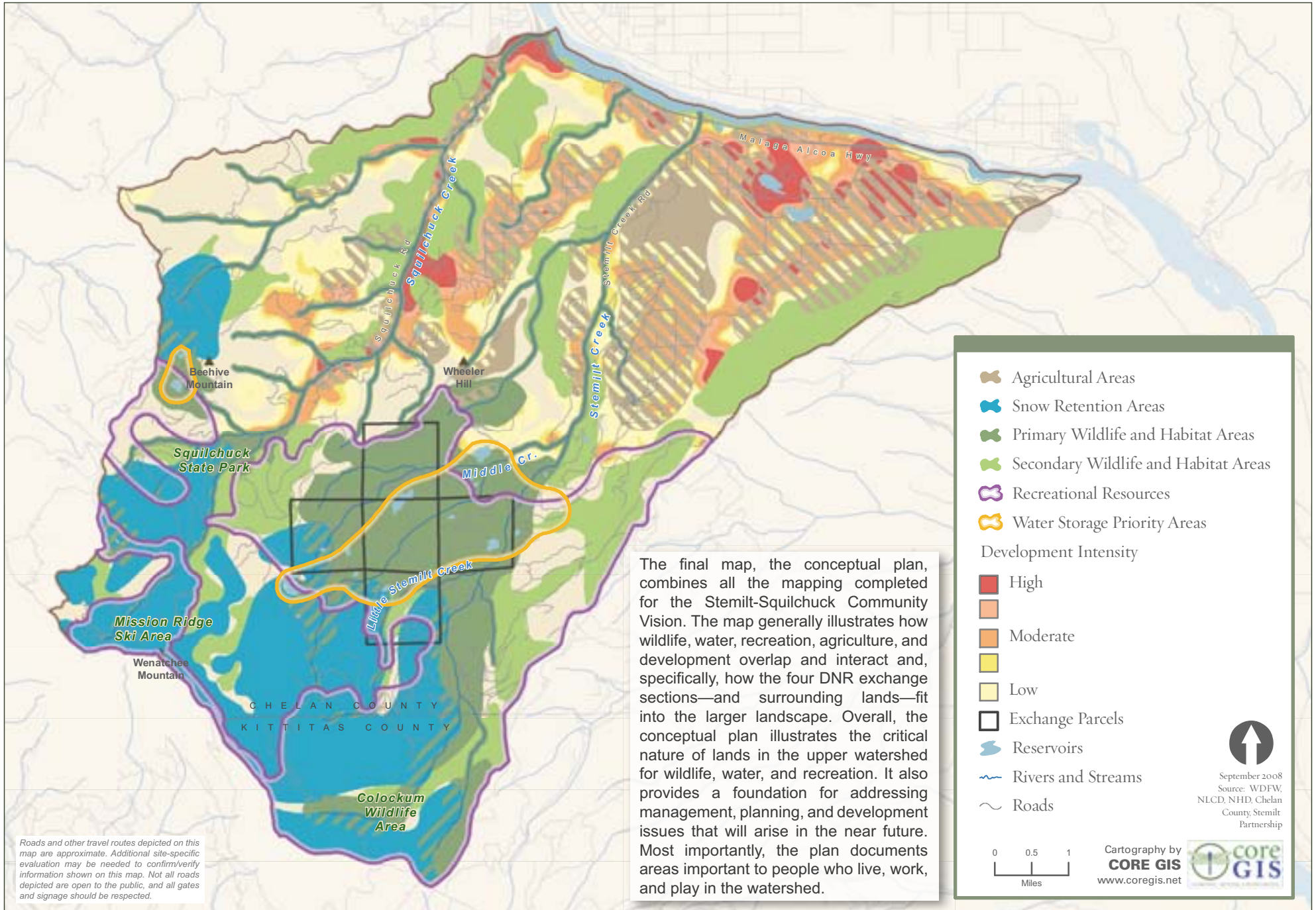
- An overlay district<sup>18</sup> could be designated for a defined portion of the watershed that provides an additional level of protection for lands of high water, wildlife, or recreational value;

- Open-space design for future development proposals should be promoted to preserve important resources through incorporating features such as critical-lands buffers, public access requirements, and/or open space preservation standards;
- Chelan County and the Stemilt Partnership should work together to identify lands not appropriate for future development;
- In partnership with organizations such as the Chelan-Douglas Land Trust and Washington Department of Fish and Wildlife, Chelan County and the Stemilt Partnership could develop a guide to private land stewardship unique to the watershed, providing ideas and tools for accommodating water and wildlife resources;
- Chelan County, land-management agencies, and the Stemilt Partnership should evaluate road networks in the watershed to determine what roads should be considered for closure and where deterrent infrastructure is needed;
- All future management planning in the watershed should include the Stemilt Partnership, and planners should reach out to as many user groups as possible;
- Public-private partnerships should be encouraged and supported by the county and other land-management agencies to promote educational programs, trail-building, clean-up activities, enforcement, and other management-oriented efforts; and
- Land exchange between public agencies and private landowners is another viable, affordable tool for improving land ownership patterns and administrative efficiency and protecting critical conservation lands. The Chelan County Lands Dialogue is an ongoing forum for potential land exchanges in the county.

---

<sup>18</sup> An overlay district is an additional zoning requirement that is placed on a geographic area but does not change the underlying zoning. Overlay districts have been used to impose development restrictions in specific locations in addition to standard zoning requirements. In Chelan County, the following overlay districts exist: (1) Icicle Valley Design Review Overlay District; (2) Airport Overlay District; (3) Planned Unit Development District; (4) Fish and Wildlife Habitat Areas Conservation Areas Overlay District; (5) Wetlands Areas Overlay District; (6) Aquifer Recharge Areas Overlay District; (7) Frequently Flooded Areas Overlay District; and (8) Geologically Hazardous Areas Overlay District.

# MAP 6.4 CONCEPTUAL PLAN



The final map, the conceptual plan, combines all the mapping completed for the Stemilt-Squilchuck Community Vision. The map generally illustrates how wildlife, water, recreation, agriculture, and development overlap and interact and, specifically, how the four DNR exchange sections—and surrounding lands—fit into the larger landscape. Overall, the conceptual plan illustrates the critical nature of lands in the upper watershed for wildlife, water, and recreation. It also provides a foundation for addressing management, planning, and development issues that will arise in the near future. Most importantly, the plan documents areas important to people who live, work, and play in the watershed.

Roads and other travel routes depicted on this map are approximate. Additional site-specific evaluation may be needed to confirm/verify information shown on this map. Not all roads depicted are open to the public, and all gates and signage should be respected.





A view of the Stemilt-Squilchuck watershed in winter

## 7. TOWARD IMPLEMENTATION: OPPORTUNITIES FOR ACTION, COLLABORATION, AND NEXT STEPS

Turning the community vision into action is a critical step in the visioning process. In addition to the considerations presented in the conceptual plan, key actions and opportunities captured in this chapter provide a framework for implementation that the community and partner organizations can use as a road map for the future.

### Major Opportunities

There are several opportunities for action and collaboration in the Stemilt-Squilchuck watershed that will play a key role in the fulfillment of the Stemilt-Squilchuck Community Vision.

#### *The Future of the Stemilt Partnership*

The Stemilt Partnership is a unique collaboration because of the broad-based interests it represents (see Appendix A for a list of members). Over the past year, the Partnership has successfully worked with Chelan County to remove the four DNR sections out of exchange efforts. The Partnership has also played a key role in attracting state, local, and private dollars to help with the visioning process.

Moving forward, the Stemilt Partnership has the potential to set a precedent for successful broad-based partnerships in Washington. Working toward the goals identified in the Stemilt-Squilchuck Community Vision, the Partnership will provide the necessary forum for the following:

- **Political Advocacy.** The range of interests the Partnership represents is powerful in Chelan County, Washington state, and at the federal level. As conservation funding opportunities grow increasingly com-

petitive and funding pots shrink, a unified partnership—representing such diverse interests—will be critical to securing funding and advocating on behalf of maintaining or increasing relevant funding sources such as the Washington Wildlife and Recreation Program.

- **Informed Decision Making.** As a group composed of people who live, work, and play in the watershed, the Stemilt Partnership has an intimate understanding not only of major concerns and community sentiment, but also of the landscape and the natural environment. Acting as a community forum for activities or issues that impact the Stemilt-Squilchuck Community Vision, the Partnership can work closely with Chelan County to ensure that decisions affecting the watershed are well-informed and reflect the principles and values captured in the community vision and conceptual plan.
- **Interest Group Collaboration.** At present, the Partnership is composed of groups that represent water, agricultural, wildlife, recreation, conservation, development, and political interests. While the collaboration is broad-based, it could be even broader, capturing more representation and participation of other interest groups (e.g., equestrian and cycling clubs). Nonetheless, the Partnership provides a unique forum for interest groups to share concerns and priorities to help foster understanding across diverse interests and provide opportunities for further collaboration. In the future, the Partnership could provide an organizing forum for other interests such as a Stemilt Basin Trails Coalition.

### **Public-private Partnerships**

“Public-private partnerships” are already at work in the Stemilt-Squilchuck watershed, and there is opportunity for more innovative collaborations. Some ongoing partnerships include: (1) the Wenatchee Sportsmen’s Association’s “Eyes in the Woods” program that helps civilians track rules and regulations violators and report them to relevant authorities; and (2) the Wenatchee Fly

Fisher’s partnership with irrigation districts to install signage and regularly clean up trash and debris at fishing reservoirs. Future partnerships could include:

- **Expansion of “Eyes in the Woods” Program to Other User Groups.** With public enforcement capacity severely limited, plenty of reckless, law-breaking, and destructive activities take place in the watershed. The Wenatchee Sportsmen’s Association’s Eyes in the Woods program is a model for future private-public citizen-monitoring partnerships. Getting other interest groups trained and involved would expand the reach of the program and hopefully come closer to bridging the gap in public enforcement capacity. Groups involved in such partnerships could also work with the county in establishing stiffer penalties for reckless behavior.
- **Private Landowners, Land Conservation Groups, and Public Agencies.** Private land conservation groups such as Chelan-Douglas Land Trust, Rocky Mountain Elk Foundation, The Nature Conservancy, and The Trust for Public Land can serve as a critical link between private landowners and public agencies. These groups can advise private landowners about the range of private land stewardship options such as conservation easements or wildlife-friendly site development, and help facilitate voluntary transactions between willing landowners and public agencies.
- **Education and Outreach Campaigns.** Educating user groups, landowners, and others about appropriate stewardship and user practices can help reduce negative impacts to water, wildlife, and recreational resources. Through trail signage, on-the-ground activities (including trail building or restoration), and other efforts, school groups, user groups, and others can learn about what it takes to keep the watershed healthy and safe. Public agencies can team up with groups in the Partnership or other community organizations to develop and implement such campaigns.



## Future Planning Efforts

Although lots of planning has already taken place in the watershed—most recently the WRIA 40A Watershed Management Plan—there is opportunity to learn more about the watershed and develop more specific plans to help achieve the long-term goals of the Stemilt-Squilchuck Community Vision. A few opportunities include:

- **Continued Cooperation and Coordination with the WRIA 40A (Stemilt/Squilchuck) Planning Unit.** Protection of water resources has been identified as one of the major goals of the Partnership and the Planning Unit. Opportunity B.2 of the WRIA 40A Watershed Management Plan states: “Work with Chelan County Natural Resources Department (CCNRD) and other local governments to ensure the full consideration of the water resources implications associated with future land-use decisions in WRIA 40A. Continued participation in the Stemilt Partnership (Partnership), a public-interest and land-management group formed in February 2007, will allow the Planning Unit to address and collaborate with the Partnership on issues regarding land ownership changes and land use issues in the Stemilt basin and vicinity.” Currently the 40A Planning Unit is in the implementation phase (Phase 4) of their watershed-planning effort. By continuing to be part of the Partnership, the Planning Unit can ensure there is no duplication of efforts and that appropriate implementation actions are identified. Also, information and data collected as part of the watershed-planning effort will be available to the Partnership. Currently the Planning Unit is conducting a water storage feasibility study in order to increase water storage within the watershed. The results of the study could be used as part of future decision-making processes regarding water resource protection.
- **Land-management Plans.** With a likely change in ownership in the upper reaches of the watershed, new management plans will have to be

developed that meet future landowners’ management objectives. With new planning efforts come new opportunities to get the community involved in the process to ensure management goals and objectives meet local needs as best possible. The Partnership provides an excellent forum for providing citizen input into any future management planning efforts.

- **Additional Studies.** Although recent natural-resource-based planning has gathered and developed much-needed information on the watershed, future studies will provide greater insight into the water, wildlife, and recreational resources of the area. For example, a groundwater recharge study would help provide better understanding of the geology and subsurface function of the watershed, to accurately identify critical recharge areas. Also, the landscape is important to migrating elk and mule deer, and gaining a better understanding of ungulate movement and habitat would help inform future management efforts. Furthermore, for large-scale development proposals, feasibility and impact studies would shed light on how such development would affect community resources and the natural environment.

## Conservation Funding Opportunities

The first step to implementing a community vision is identifying where the money will come from to support key actions such as land acquisition. TPL has completed a conservation finance feasibility study to provide an overview of local, state, and federal funding opportunities the local community can harness to achieve conservation objectives. (See Appendix E for entire study.)

Highlights from the Stemilt-Squilchuck Feasibility Study include:

- **Washington Wildlife and Recreation Program (WWRP).** WWRP is one of the most viable sources of state funding for land conservation activities in the watershed. In 2007, the program was awarded \$100

million to distribute among outdoor recreation, habitat conservation, riparian habitat protection, and farmland preservation grant categories. The amount of funding available for 2009-11 will be established during the 2009 legislative session. State and local agencies are eligible for funding through WWRP.

- **Washington Trust Land Transfer (TLT) Program.** The TLT program is also a viable option for funding in the watershed, given the DNR ownership of the four trust land sections in the upper watershed. The program transfers school trust lands suitable for natural or wildlife areas, parks, outdoor recreation, or open space to appropriate ownership while providing funding to schools equal to the timber or lease value of the transferred land. Each biennium, the DNR board prepares a list of candidates for the program. Since 1989, more than 79,000 acres of trust lands have been transferred to other public agencies or programs for protection and management.
- **Federal Funding Programs.** Federal programs such as the Cooperative Endangered Species Conservation Fund and the Land and Water Conservation Fund are potential funding sources for protecting the wildlife and recreational resources of the watershed.<sup>19</sup>
- **Conservation Futures Tax.** Local conservation funding can be generated through a number of mechanisms such as sales taxes, real estate excise taxes, and bonds. In Washington, local governments may also levy a Conservation Futures Tax (at \$.0625 per \$1,000 of assessed value) to purchase land and/or development rights for the purposes of protecting natural resources, open space, or working lands (e.g., timber and agriculture). Implementing this tax in Chelan County would generate roughly \$434,000, and would cost the average homeowner \$15 annually.

Additional conservation funding opportunities not included in the feasibility study, but of interest to the community, include:

---

<sup>19</sup> Unfortunately, no federal or state funding programs exist that fund the protection of water resources as a means to protect the agricultural economy. As presented in Appendix E, the federal farmland protection program protects farms through purchasing development rights on farmland. No program sanctions the purchase of land in the upper watershed, for example, to protect the water source for farms in the lower watershed. There may be opportunities at the state and federal levels to raise awareness about the significance of this connection and additional opportunities for land conservation.

- **User Fee-based System.** Fee-based systems are often used to generate revenue for maintenance and stewardship of areas used by the public. Revenue is then most often used to maintain and operate public facilities. Ultimately, land ownership dictates if a fee-based system is put in place. There are several pros and cons for such a system.
- **2008 Farm Bill Opportunities.** The passage of the 2008 Farm Bill—the Food, Conservation and Energy Act of 2008—ushered in great gains for agriculture, farmland protection, land conservation, and more. Some highlights, relevant to the Stemilt-Squilchuck Community Vision, include: (1) a \$560 million increase in funding over five years for the Farmland Protection Program; (2) creation of a new grant program, the Community Forest and Open Space Conservation Program, which authorizes local governments, tribes, and nonprofits to purchase private forest lands for the creation of community forests through fee acquisition; (3) a two-year extension of the conservation tax incentive (first enacted in 2006) that provides more generous tax deductions for donations of conservation easements; and (4) a Forest Bonds provision that allows state and nonprofits to issue \$500 million in bonds (or similar financing mechanism) to address conversion of large-acreage forests adjacent to U.S. Forest Service lands. While great strides in food, farm, and conservation policy were made, they are not permanent; gains will be affirmed through the rule-making and appropriations process over the next year.<sup>20</sup>

From the federal to the local level, there are many funding options to apply to land conservation in the Stemilt-Squilchuck watershed. Because funds are competitive and require match funding of some kind, two to three sources may need to be pursued simultaneously. Demonstrating local commitment through local funding sources and strong, broad-based partnerships are two key ingredients in a successful funding strategy.

---

<sup>20</sup> For a more detailed account of the provision of the 2008 Farm Bill, visit TPL's "Washington Watch" web page at [http://www.tpl.org/tier3\\_cdl.cfm?content\\_item\\_id=22300&folder\\_id=2205](http://www.tpl.org/tier3_cdl.cfm?content_item_id=22300&folder_id=2205) (accessed June 18, 2008).



## **Next Steps for the Stemilt Partnership**

To set the wheels in motion for the implementation of the Stemilt-Squilchuck Community Vision, the Stemilt Partnership agreed to a set of guiding principles for plan implementation as well as specific actions to pursue over the next one to two years. The principles and actions provide the Partnership with a framework for implementation as activities move forward in the watershed.

### ***Guiding Principles for Implementation***

The implementation of the Stemilt-Squilchuck Community Vision shall be guided by the following principles, agreed upon by the Stemilt Partnership:

- Coordinate all implementation activities through the Stemilt Partnership;
- Capitalize on funding opportunities as they become available or are identified, particularly as outlined in the conservation finance portion of the Stemilt-Squilchuck Community Vision;
- Evaluate all implementation proposals for consistency with the Stemilt-Squilchuck Community Vision;
- Consider multiple interests when developing implementation proposals and, to the greatest extent possible, accommodate as many interests as possible;
- Consider long-term impacts to different uses when implementing the Stemilt-Squilchuck Community Vision; and
- Meet semi-annually or as needed to evaluate proposals and monitor implementation of the Stemilt-Squilchuck Community Vision.

## ***Key Short- and Long-term Actions***

Now that a community vision has been created and goals established for water, wildlife, and recreation, the Stemilt Partnership must take the lead to engage the community and garner the political and financial support necessary to make the vision a reality. A specific implementation framework, outlining key strategies and actions, partners, and time frame, is presented in Appendix F. The framework will guide the activities and focus of the Stemilt Partnership over the next one to two years.

Key actions to support over the short term include:

- Identifying alternative ownership and management scenarios in the upper watershed, specifically related to the four DNR sections and lands owned by Longview Fibre;
- Investing in technical surveys to resolve public and private easement issues and road management in the upper watershed;
- Aligning political support at the state and federal level for conservation efforts supported by the Stemilt Partnership and Chelan County;
- Raising mainstream awareness of the Stemilt-Squilchuck Community Vision and what it means for the future of the community; and
- Establishing a specific work plan and action agenda to drive the activities of the Stemilt Partnership over the next two years.

Over the long term, key actions include:

- Establishing strong political support at the state and federal levels for conservation efforts supported by the Stemilt Partnership and Chelan County;
- Coordinating with current government-funded planning efforts such as the implementation of the Stemilt-Squilchuck Watershed Plan (WRIA 40A); and
- Securing the necessary funds or political support to ensure the Stemilt Partnership continues to be a viable, effective coalition.

Chelan County, the Stemilt Partnership, The Trust for Public Land, and several other agencies and organizations stand ready to work together toward the goals presented in this report and make the Stemilt-Squilchuck Community Vision a reality.



Snowmobilers taking a break along one of the many groomed trails in the watershed



## 8. CONCLUSION

The Stemilt-Squilchuck Community Vision provides insight into the core values and priorities of people who live, work, and play in the Stemilt-Squilchuck watershed. The vision stresses the importance of water, wildlife, and recreational values and demonstrates the interconnected nature of the watershed—how values overlap, interact, and strengthen one another. Drawing from local knowledge and scientific data, the maps created as part of the visioning process provide a spatial representation of these values on the landscape.

The sustained involvement of the Stemilt Partnership, community leaders, and representatives from a variety of public and private organizations provides the foundation for the Stemilt-Squilchuck Community Vision. The long-term goals and guiding principles established through a community process provide direction for future actions in the watershed—direction that will manage growth in ways consistent with community values and priorities. Success will only be realized with the ongoing commitment and involvement of community leaders and people who benefit from the abundant resources in the watershed.

While there is plenty of work to be done to harness the momentum for collaboration and ideas presented in the community vision and conceptual plan, the groundwork for future efforts has been established to protect water resources, conserve wildlife resources, and maintain and enhance recreational access to public lands.



Arrowleaf balsamroot  
flowers and the Stemilt  
watershed



## 9. APPENDICES

- A. Stemilt Partnership Members
- B. Community Survey and Workshop Results
- C. Mapping Methodology
- D. Additional Maps
- E. Stemilt-Squilchuck Conservation Finance Feasibility Study
- F. Stemilt Partnership Implementation Framework

## A. STEMILT PARTNERSHIP MEMBERS

The Stemilt Partnership (Partnership) is composed of more than 20 organizations representing a variety of interests in the Stemilt-Squilchuck watershed. The Partnership was formed in spring 2007 in response to the proposed sale of four sections of public land owned and managed by the Washington Department of Natural Resources (DNR). In July 2007, DNR removed the four sections of land from the land-exchange effort per the request of Chelan County and the Partnership.

Members of the Stemilt Partnership include:

Apple Country Snowmobile Club	Squilchuck Water Users Association
Beehive Irrigation District	Stemilt Irrigation District
Chelan County	The Trust for Public Land
Chelan County Public Utility District	Three Lakes Maintenance Corporation
Chelan-Douglas Land Trust	U.S. Forest Service
Citizens and Growers of the Stemilt and Squilchuck Basins	Washington Department of Fish and Wildlife
Highline Ditch Company	Washington Department of Natural Resources
Lake Cortez Water Association	Washington State Parks
Lockwood-Canady Irrigation Company	Wenatchee Heights Reclamation District
Lower Stemilt Irrigation District	Wenatchee Sportsmen's Association
Malaga-Colockum Community Council	Wenatchee Valley Fly Fishers
Malaga Water District	WRIA 40A Watershed Planning Unit
Mission Ridge Ski and Snowboard Resort	
Rocky Mountain Elk Foundation	

## B. COMMUNITY SURVEY AND WORKSHOP RESULTS

### Community Survey Results

Responses gathered as part of the Stemilt-Squilchuck Community Survey have been broadly characterized and summarized below. The community survey was open-ended, and responses varied widely. In total, 20 surveys were collected.

1. What do you consider special or unique about the Stemilt and Squilchuck basins? Any specific places?	
General	Specific
<ul style="list-style-type: none"> <li>Wildlife habitat</li> <li>Multi-season, motorized and non-motorized recreation</li> <li>Watershed and irrigation qualities</li> <li>Close proximity to town</li> <li>Wild and rural quality</li> <li>Easy access to public lands</li> <li>Cherry orchards</li> <li>Current mix of orchards, development, forest, wildland</li> <li>Active volunteer groups who steward lands</li> </ul>	<ul style="list-style-type: none"> <li>Squilchuck State Park</li> <li>Upper Wheeler Reservoir</li> <li>Flat plateau in Section 17</li> <li>Lily Lake</li> <li>Mission Ridge</li> </ul>

2. How have the Stemilt and Squilchuck basins changed positively or negatively in the last 10-20 years?	
Positively	Negatively
<ul style="list-style-type: none"> <li>Increased recreation</li> <li>Increased development</li> <li>More irrigation infrastructure</li> <li>Maintenance of solitude</li> <li>More natural resources planning</li> </ul>	<ul style="list-style-type: none"> <li>Increased recreation</li> <li>Increased residential development and industrial forest activity (more logging)</li> <li>Increased demand for water resources</li> <li>Increased pressure on wildlife habitat</li> <li>More people, more trash, more conflicts</li> <li>Illegal camping, ORV recreational use increases wildfire risk and trash (especially in summer)</li> </ul>

3. How would you like the Stemilt and Squilchuck basins to change over the next 5 years? What do you want to remain the same?	
Change	Remain Same
<ul style="list-style-type: none"> <li>Find balance between habitat and recreational use</li> <li>Develop multi-use trail network</li> <li>Better manage and protect land and water resources</li> <li>Limit large-scale and resort development watershed</li> <li>Any new development is low-impact and incorporates multiple uses where appropriate</li> </ul>	<ul style="list-style-type: none"> <li>Migration corridors for game</li> <li>Habitat and recreation for all</li> <li>Land open to the public</li> <li>Protected high-quality forestland for wildlife and overall watershed health</li> <li>Undeveloped upper portions of basins</li> <li>Protected water resources</li> <li>Active forest management</li> <li>Recreational opportunities</li> </ul>

4. What kind of growth, development, and/or activities <u>are</u> appropriate in the Stemilt and Squilchuck basins?
<ul style="list-style-type: none"> <li>New, low-impact development (potentially clustered) adjacent to existing development, protecting the upper basins and migration corridors</li> <li>Designated areas and signage for recreational activities (hunting, snowmobiling, fishing, camping, biking, skiing, horseback riding, hiking, and other recreational activities)</li> <li>Public access to some of the water resources for fishing, camping</li> <li>Single-family housing, small family farms</li> <li>Agriculture</li> <li>Potential seasonal closures during calving periods</li> <li>Potential closures of roads for weather-related conditions (to save roads)</li> <li>Multi-use trails planning and development</li> </ul>

5. What kind of growth, development, and/or activities <u>are not</u> appropriate in the Stemilt and Squilchuck basins?
<ul style="list-style-type: none"> <li>Anything detrimental to watershed protection</li> <li>Unplanned or unregulated development</li> <li>Large-scale housing developments</li> <li>Large-scale mining or industry</li> <li>Development that would disrupt big-game movement patterns or limit access to public lands</li> <li>Unregulated off-road vehicle use</li> </ul>

6. What action(s) need to be taken to protect what's special or unique about the Stemilt and Squilchuck basins? Please identify specific partnerships, activities, funding strategies, etc. key to this effort.
<ul style="list-style-type: none"> <li>Secure funding to purchase DNR lands and to cover staff and maintenance costs of properties over the long term</li> <li>Create a land-use or subarea plan for the basins to better guide future development and protect land and water resources</li> <li>Continue collaborative work of Stemilt Basin Partnership and Chelan Lands Dialogue to address management and funding issues</li> <li>Engage volunteer groups in stewardship, restoration, and/or education and awareness activities</li> <li>Pursue broad-based trails planning that accommodates multi-season, motorized and non-motorized activities</li> <li>Map elk migration and movement patterns</li> <li>Gain a better understanding of water supply and source issues and secure funding for irrigation projects</li> <li>Increase enforcement of present rules and regulations</li> <li>Close or limit the use of some roads and trails</li> <li>The Stemilt Partnership should develop a land management and ownership strategy to help guide appropriate land uses in the basins</li> <li>Determine future of Longview Fibre lands</li> </ul>



## Community Workshop Results

The community workshop sought input on four major themes: recreation, development, agriculture and water resources, and wildlife resources. Summaries from each workstation are provided below. Note: the asterisks below represent dots gathered in a dot exercise, which captured workshop attendees' opinions on several topics; each attendee was allocated three dots (at most) per station.

### Recreation

Key Questions	Desired Outcomes	Achieved?
1. What are the most popular recreational activities in the basins?	• Informal ranking of most popular activities	<input checked="" type="checkbox"/>
2. What areas are most heavily used for recreation?	• Map of high-value recreational areas	<input checked="" type="checkbox"/>
3. What are the top concerns about recreation in the basins?	• Informal ranking of top issues	<input checked="" type="checkbox"/>
4. What are some major recreational opportunities looking ahead?	• Informal ranking of top issues	<input checked="" type="checkbox"/>
5. Can any opportunities be mapped? (e.g., trail systems)	• Map of specific projects, ideas, project areas	

#### Popular Activities

Hunting\*\*\*\*\*  
 Hiking\*\*\*\*\*  
 Snowmobiling\*\*\*\*  
 Wildlife viewing\*\*\*\*  
 Fishing\*\*\*  
 Skiing – Alpine\*\*\*\*  
 Camping\*\*\*\*  
 Off-road vehicle use \*\*\*  
 Biking\*\*  
 Skiing – XC\*  
 Snowshoeing\*

Horseback riding\*  
 Motorcycle riding\*

#### Top Concerns

Increased trash, dumping\*\*\*\*\*  
 Lack of enforcement\*\*\*\*\*  
 Increased vandalism\*\*\*\*\*  
 Habitat degradation \*\*\*\*\*  
 Violations of Green Dot rules\*\*\*\*\*  
 Lack of formal trail network\*\*\*  
 User conflicts

## Recreational Opportunities

### Expansion of Squilchuck State Park\*\*\*\*\*

XC ski trail system\*\*\*  
 Designated hunting areas\*\*  
 Year-round activities at Mission Ridge\*\*  
 Expanded ski terrain at Mission Ridge\*\*  
 Designated motorized recreation areas\*

## Major Findings

- Lots of recreational use in the upper basins – both human and motor-powered. The area connects Wenatchee and Ellensburg via backcountry roads/trails;
- Lack of enforcement of regulations (e.g., Green Dot rules) are a big problem in the area;
- Increased human use of the upper basins would be a bad thing (already enough);
- Many want the upper basin area to remain open and undeveloped; and
- Concern about more formalized development recreational trails – would attract more people and more problems.

## Development

Key Questions	Desired Outcomes	Achieved?
1. What are the most popular recreational activities in the basins?	<ul style="list-style-type: none"> <li>Informal ranking of most popular activities</li> </ul>	
2. What areas are most heavily used for recreation?	<ul style="list-style-type: none"> <li>Map of high-value recreational areas</li> </ul>	
3. What are the top concerns about recreation in the basins?	<ul style="list-style-type: none"> <li>Informal ranking of top issues</li> </ul>	
4. What are some major recreational opportunities looking ahead?	<ul style="list-style-type: none"> <li>Informal ranking of top issues</li> </ul>	
5. Can any opportunities be mapped? (e.g., trail systems)	<ul style="list-style-type: none"> <li>Map of specific projects, ideas, project areas</li> </ul>	

## Major Concerns

**Increased demand on water resources**\*\*\*\*\*

**Losing access to public land**\*\*\*\*\*

**Increased habitat fragmentation and pressure**\*\*\*\*\*

Increased pressure on agriculture\*\*\*\*

Increased wildfire hazards\*\*\*

Habitat degradation (e.g., erosion) \*\*\*

Sewer and septic pollution\*\*\*

Increased land use regulation\*\*

## Major Findings

- Development in the basin is mostly dispersed residential and agricultural development; not a lot of commercial development;
- Future development in the upper basins should emphasize public access and some recreational opportunities. Higher-density development should occur in lower canyons, stretching from existing urban areas;

- Habitat fragmentation is big concern—it’s happening, and movement patterns of game have changed;
- Demand for water is increasing; the watershed is already at maximum capacity; and
- There’s concern about agricultural lands being taxed out of use, if kept out of Open Space tax designation (not all farmers want to put land into such status). Lessons can be learned from abroad – in New Zealand, a well-established agricultural district system has resulted in agricultural lands being valued higher for ag uses (as compared to other uses such as residential).

## Agriculture and Water Resources

Key Questions	Desired Outcomes	Achieved?
1. Where are important water resources for agriculture?	<ul style="list-style-type: none"> <li>Map of high-value water resource areas</li> </ul>	<input checked="" type="checkbox"/>
2. What are the top concerns about agriculture and water resources in the basins?	<ul style="list-style-type: none"> <li>Informal ranking of top issues</li> </ul>	<input checked="" type="checkbox"/>
3. Where are there conflicts between agriculture and other uses?	<ul style="list-style-type: none"> <li>Map of “conflict areas”</li> </ul>	
4. Where are critical farms in the basins? --Public views all the farmland as important. One view may be that the relative value of farming areas in WRIA 40A is based on access to water. --The group did indicate forestlands do not hold the same value for farming as the lower elevation areas that are in orchard.	<ul style="list-style-type: none"> <li>Map of high-value farmland</li> </ul>	

### Major Concerns

Effects of fire on water quality, quantity and irrigation infrastructure  
 Recharge  
 Increased water demand\*  
 Irrigation infrastructure vandalism  
 Limited water storage capacity  
 High-fenced agriculture in the upper basins may be necessary to prevent conflict with wildlife  
 Water rights protection  
 Urban growth

### Major Findings

- Water quantity is a top concern;
- It's unclear how increased urban development would impact water resources and increase fire risk in the area – will likely be detrimental;

- The upper basin is the source for domestic and irrigation water for most of the basin. All the water in the basin is currently used; approximately 5,500-acre feet is actually imported to the basin from the Columbia River;
- The four sections are important source, recharge and storage areas. Proper forest management (harvesting and replanting, fire management, etc.) throughout the basin is critical to ensure water supplies;
- Need to increase storage capacity to compensate/prepare for climate variability (e.g., drought years) and maintain long-term sustainability of ag land;
- There is increased conflict between orchards and housing in the Three Lakes area;
- Orchards in general are being increasingly subdivided;
- Trespass and unregulated access to irrigation district infrastructure is a problem in the upper basin;
- The economic base of the region is influenced by ag in the basin;
- There is a general lack of understanding among non-ag community about water rights, agricultural practices, etc.; also concern over illegal water use;
- Many in the watershed believe the Columbia River, not the upper basin, is the primary source for groundwater (note: only three percent of the water used in the watershed is from the Columbia River); and
- There is general conflict between agricultural uses and elk and deer populations.



## Wildlife Resources

Key Questions	Desired Outcomes	Achieved?
1. What are the top concerns about wildlife in the basins?	<ul style="list-style-type: none"> <li>Informal ranking of top concerns</li> </ul>	<input checked="" type="checkbox"/>
2. Where are important wildlife resources in the basins?	<ul style="list-style-type: none"> <li>Map of high-value wildlife areas</li> </ul>	<input checked="" type="checkbox"/>
3. Roads management seems to be a hot-button issue. Where are problem areas?	<ul style="list-style-type: none"> <li>Map of problem areas for roads</li> </ul>	<input checked="" type="checkbox"/>
4. Seasonal closures for wildlife has emerged as an idea to better manage wildlife in the area. What areas should be considered for potential seasonal closure?	<ul style="list-style-type: none"> <li>Map of potential closure areas</li> </ul>	

- Habitat is becoming increasingly fragmented;
- The relationship between wildlife habitat and orchards is complicated – need to find appropriate balance that works for both; and
- May be opportunity to map existing elk fencing around orchards to help guide future development in the area.

## Major Concerns

**Improper road management\*\*\*\*\***

**Increased trash, litter\*\*\***

**Increased habitat fragmentation and pressure\*\***

Increased habitat degradation

Losing access to public land\*

Wildlife harassment

## Major Findings

- Road management is a major concern and is the source of many problems in the basin. All problem areas are generally south of the Stemilt Loop Road;
- Road management issues such as too high of road density per square mile, all roads open year round, no gate infrastructure to currently allow for seasonal closures, minimal road abandonment and off-road vehicle trespass;
- Improper road management, including the lack of enforcing “Green Dot” road rules, increases trash, litter, and trespass problems;

## C. MAPPING METHODOLOGY

### Goal 1: Protect Water Resources

The water resources model was created in an attempt to map areas crucial for delivering a steady supply of irrigation water throughout the growing season. Most of this water is “stored” (at least initially) in the form of accumulated snowpack in the higher reaches of the watershed, before it is collected and stored in the system of man-made reservoirs. There are several site characteristics that make some portions of the higher elevations more conducive to snowpack retention than others. In order to ascertain the distribution of these areas, we consulted with Greg Berdan, the system manager at Wenatchee Heights Reclamation District. Greg used his local knowledge of the watershed to draw on a map those areas that retain the most snow for the longest period of time, based on his extensive experience in the area.

These hand-drawn polygons were digitized and converted into ESRI SHP files. We then extracted site characteristics from within these polygons and extrapolated those characteristics to the balance of the watershed. These characteristics include:

- Aspect
- Slope
- Crown closure
- Vegetated/Unvegetated
- Precipitation
- Elevation

The values for crown closure and aspect extracted from the digitized polygons were analyzed using a reverse rolling total (Table C-1) to determine the threshold for extrapolation to the rest of the watershed.

This table is useful for showing the relative proportion of the area within the digitized polygons that is covered by different percentages of canopy closure (for

Table C-1.

#### Crown Closure Values within High Snow Retention Areas\*

*Stemilt-Squilchuck Community Vision 3/19/2008*

Percent Crown Closure	Count	Acres	Percent	Reverse Rolling Total Percentage
0-9.9 percent	13	51.13	0.04	100%
10-19.9 percent	7	1.79	0.00	96%
20-29.9 percent	23	11.50	0.01	96%
30-39.9 percent	53	20.96	0.02	95%
40-49.9 percent	89	39.88	0.03	93%
50-59.9 percent	145	65.19	0.05	90%
60-69.9 percent	228	110.44	0.09	85%
70-79.9 percent	285	140.60	0.11	76%
80-89.9 percent	360	197.61	0.16	65%
90-100 percent	105	630.42	0.50	50%
		1,270	100%	

*\*As identified by technical subcommittee members*

example, this table indicates that 85% of the polygons contain 60% or higher canopy closure). In general, the pattern shows that areas with a higher percent canopy closure cover increasingly more area, so we normalized the canopy closure data on a scale of 0-100 using the generalized equation:

$$([GRID] - MYMIN) * ((NEWMAX - NEWMIN)/(MYMAX - MYMIN)) + NEWMIN$$

Aspect values were extracted and analyzed in a similar fashion, as shown in Table C-2 below. The four most prevalent aspects in terms of area are Northeast,

East, North, and Northwest, respectively. Similar to the canopy closure, we normalized the aspect data by converting the percent area into the numerical score for each aspect class and normalizing to a 1-100 scale, using the same generalized equation as above.

Table C-2.

**Aspect Values within High Snow Retention Areas**

*Stemilt-Squilchuck Community Vision 3/26/2008*

Aspect	Count	Acres	Percent	Reverse Rolling Total Percentage
Southwest	4	3.07	0.24%	100%
Flat	1	7.67	0.60%	100%
South	2	11.76	0.93%	99%
West	9	43.72	3.44%	98%
Southeast	18	69.54	5.48%	95%
Northwest	39	155.18	12.22%	89%
North	88	223.18	17.58%	77%
East	47	346.65	27.31%	60%
Northeast	84	408.78	32.20%	32%
		1,270	100%	

Precipitation data from the WRIA 40A watershed plan was similarly scaled from 0-100 using the generalized equation.

For the remaining variables, vegetated/unvegetated areas were treated as a binary screen, where vegetated areas were assigned a value of one and unvegetated areas were assigned a value of zero (and therefore excluded from the model). Slope was also expressed as a binary screen, with areas above 25 degrees removed

completely from the analysis, due to the high likelihood of avalanche on these steep slopes.

Finally, based on input from the Water Resources Technical Review Committee, we applied an elevation cut-off of 3,000 feet or higher.

The variables were combined in both weighted and unweighted linear summations. After reviewing both results, the Water Resources Technical Subcommittee determined that the unweighted results more accurately reflected their understanding of the snow retention dynamics within the watershed. The draft results were presented to the larger Partnership, and they recommended we include the Mission Ridge ski area with the highest-scoring areas due to the snow-making and snow compaction that occurs throughout the ski area. We digitized this boundary and included it with the final results.

For the conceptual plan, we chose a threshold of 80 or higher (out of a potential score of 0-100) to create the generalized boundaries that indicate the areas most important for snowpack retention.

**Goal 2: Conserve Wildlife Resources**

The wildlife component of the Community Vision was created in close cooperation with the Wildlife Resources Technical Subcommittee. The Subcommittee considered a variety of potential models, including MARXAN and the Analytical Hierarchy Process, but after close examination and careful consideration of the available data, the objectives of the vision, and the rigorous timeline, decided to pursue an additive process that captures the ‘Best of the Best’ of the wildlife resources in the watershed. The data used to create the composite include:



- Potential Elk Summer Habitat
- Focal Bird Species Source Habitat
- Rare Forest Structure
- Potential Mule Deer Winter Range
- Fish-bearing Streams and Other Riparian Areas
- WDFW Priority Habitats & Species
- cover 1 – 85 meters from forage
- cover 86 – 285 meters from forage
- cover > 285 meters from forage
- forage 86 – 285 meters from cover
- forage 286 – 484 meters from cover
- forage > 484 meters from cover

### **Potential Summer Elk Habitat**

The summer elk potential habitat model was based on a model developed by John Musser, et al, for the Colockum Wildlife Area. The model was run for the nine townships that intersect with the Stemilt-Squilchuck watershed (WRIA 40A). Results were summarized by John Musser in his report Elk Habitat Potential, Stemilt and Squilchuck Drainages (March 2008).

The area of interest includes nine townships (T20R19E, T20R20E, T20R21E, T21R19E, T21R20E, T21R21E, T22R19E, T22R20E, T22R21E) located south of Wenatchee in central Washington. We obtained USPLS TRS data and created a template of the townships to clip digital data layers so that resulting files overlay exactly.

### **Model Development Process**

1. Used NLCD from the USGS Seamless Distribution site (<http://seamless.usgs.gov/>). Clipped to evaluation area. Reclassified to either cover (includes conifer and deciduous trees) or forage (all other except lakes). Developed buffer areas (below), then saved cover-forage buffer layer created for use in the model:

2. Obtained 10m seamless digital elevation from USGS, clipped to evaluation area and converted to degrees of slope. Reclassified slope file (below) and saved the slope classification for use in the model:
  - Areas with 0 - 10 degrees slope
  - Areas with 11 – 20 degrees slope
  - Areas with > 20 degrees slope
3. Obtained digital hydrology layer from USGS National Hydrologic Dataset (NHD, <http://nhd.usgs.gov/>), clipped to evaluation area and reclassified all perennial and intermittent streams and lakes as water. Developed buffers (below) based on distance from water and saved distances for use in the model:
  - 0 – 200 meters from water
  - 201 – 400 meters from water
  - 401 - 600 meters from water
  - > 600 meters from water

4. Modeled summer elk habitat potential based on cover-forage buffers, slope categories and hydrology buffers created in steps 1 – 3.

#### *Optimum Habitat*

- Characteristics: Cover or forage within 85 meters of edge (cover withing 85 m of forage, forage within 85 m of cover); within 400 meters of water; has slope < 11 degrees
- Equation:  $([dist\_fr\_cov2] == 1) * ([dist\_fr\_for2] == 1) * (([water\_dist3] == 1 | [water\_dist3] == 2)) * ([Reclass\ of\ slope\_deg\_v2] == 1)$

#### *Preferred Habitat*

- Characteristics: Cover between 86 – 285 meters of forage; within 400 meters of water; slopes < 11 degrees
- Equation:  $[slope\_lt\_11] + [water\_400] + [Reclass\ of\ cov86\_285for]$
- Note: Reclass new grid PREFERRED where 3 becomes 1, all else is 0

#### *Suitable Habitat*

- Characteristics: Cover within 285 meters of forage or forage within 85 meters of cover; within 400 meters of water; slopes between 11 and 20 degrees

#### *Other Habitat*

- Areas that do not meet definitions of optimum, preferred or suitable habitat

5. Determined the total acres of each model category (Optimal, Preferred, Suitable and other) for each section within the evaluation area. Provided a summary list in Excel format to John Musser for inclusion in his final report.

### **Focal Bird Species**

Focal bird species habitat was modeled by James Begley, William Gaines and others at the Wenatchee National Forest (<http://www.fs.fed.us/r6/wenatchee/>). Species included in this component are:

- White-headed Woodpecker. This species is representative of larger, older, drier, more open forest habitats.
- MacGillivray’s Warbler. This species is representative of wetlands and riparian habitats.
- Pileated Woodpecker. This species is representative of larger, older, wetter, high-percentage canopy closure forests.
- Northern Goshawk. This species is representative of similar habitats to the pileated woodpecker, but its habitat ranges much higher in elevation, nearly to the very top of the watershed.

Similarly to the PHS data, all source habitat distributions were treated similarly when they were combined into the composite map.

### **Rare Forest Structure**

This variable was derived from both the size/structure and canopy closure variables developed by the Wenatchee National Forest.

Selecting out Rare Forest Types (forest habitats with large trees, widely spaced):

1. Selected crown closure from 20 – 29.9 percent from crown-closure grid; result is crownclos20\_29.
2. Selected trees with Quadratic Mean Diameter (QMD):
  - Single story - 10 to 14.9 inches QMD; VALUE = 3
  - Single story - 15 to 19.9 inches QMD; VALUE = 4
  - Single story - 20+ inches QMD; VALUE = 5
3. Then Multiplied crownclos20\_29 X snglstry10up to yield rare\_for

The result represents the rarest forest habitat in the watershed, according to the technical subcommittee.

**Mule Deer Winter Range Model**

The Mule Deer Potential Winter Range maps were produced using a model adapted from thesis research conducted by Will Moore (Mule Deer Winter Range Use And Potential Habitat Enhancements In Chelan County, Washington, Central Washington University 2003 ). We adapted the parameters starting on page 53 (of Moore’s thesis) as follows:

Variable	Criteria	Weighting
Aspect	West	High – 3
	East/South	Med – 2
	North	Low – 1
Slope	Angle larger than 17 degrees	High – 3
	Angles between 8-17 degrees	Med – 2
	Angles between 0-8 degrees	Low – 1
Elevation	Less than/= to 750m	Included
	Greater than 750m	Excluded
Cover	Areas with no cover	High – 2
	Areas with cover	Low – 1
Distance to Cover	Areas greater than 400m	High – 2
	Areas less than 400m from cover	Low – 1

In the Stemilt, there are no areas greater than 400 meters from cover, so based on Mr. Moore’s research, we assumed that generally speaking the farther away from cover the better and used the following distances:

Distance (Feet)	Score
0 – 100	1
101 – 300	2
301 - 6833	3



Aspect, slope, and elevation were all derived from the 30m digital elevation model from the USGS described above under the Elk Summer Habitat Potential model. The distance to cover data was derived from the same distance to cover layer described under the Elk Summer Habitat Potential.

*NOTE: We were not able to obtain data for the following variables:*

Variable	Criteria	Weighting
Distance to bitterbrush	Areas more than 1200m	High – 2
	Areas less than 1200m	Low – 1
Herbaceous Classes	Yes herbaceous productivity	High – 2
	No herbaceous productivity	Low – 1

The study extent of the original winter-range habitat potential model was limited to a subset of Chelan County that stops just north of the Stemilt-Squilchuck watershed. Consequently, we were not able to use much of the data that was developed for the study, such as the distribution of bitterbrush and the herbaceous productivity layer. Our adaptation of the general approach should therefore be considered less rigorous than the model created by Mr. Moore; however, it was reviewed by the Stemilt Wildlife Resources Technical Subcommittee and was considered to be a generally accurate reflection of the observed winter range of mule deer in the Stemilt-Squilchuck.

### **Fish-bearing Streams and Other Riparian Areas**

Fish-bearing streams were identified by Ron Fox and his colleagues at the Washington Department of Fish and Wildlife, as well as from the Washington Department of Natural Resources 1:24,000 state water-type data (<http://fortress.wa.gov/dnr/app1/dataweb/dmmatrix.html#Hydrography>). We used the union of these two sources, and based on the recommendation of the subcommittee, included all perennial streams as well. We buffered all streams included in this set by 100 feet. In the conceptual plan map, these areas are represented by ¼-mile buffers (1,320 feet).

### **WDFW Priority Habitats and Species**

This dataset was obtained from WDFW (<http://wdfw.wa.gov/hab/phspage.htm>) and modified to remove elk and mule deer habitats, which were modeled separately and described below in this document. The PHS included in the wildlife composite map are:

- Bald eagle
- Cavity-nesting ducks
- Cliffs/bluffs (including additional areas of cliffs/bluffs digitized from 2006 USDA NRCS NAIP color orthophotography)
- Riparian zones
- Talus slopes (including additional areas of talus digitized from 2006 USDA NRCS NAIP color orthophotography)
- Waterfowl concentrations
- Wetlands
- Wood ducks

All of the PHS were treated similarly when they were combined into the composite map.

### Goal 3: Maintain and Enhance Recreational Access

There was very little existing data on the recreational resources in the Stemilt-Squilchuck watershed. The vast majority of the mapped recreation data came directly from the Recreational Technical Subcommittee. Unlike for the first two goals, the subcommittee did not identify a need to model recreation within the watershed, but rather determined it would be more valuable to map the existing recreational infrastructure. In close collaboration with the subcommittee, we mapped 12 existing recreation feature types, and created a Potential Recreational Resources map reflecting the potential connections (or expansions) between existing recreation features.

Traffic-counter data included with the recreation maps was gathered by the Washington Department of Fish and Wildlife and Washington Department of Natural Resources. All potential recreation expansion areas/routes were identified by the technical subcommittee.

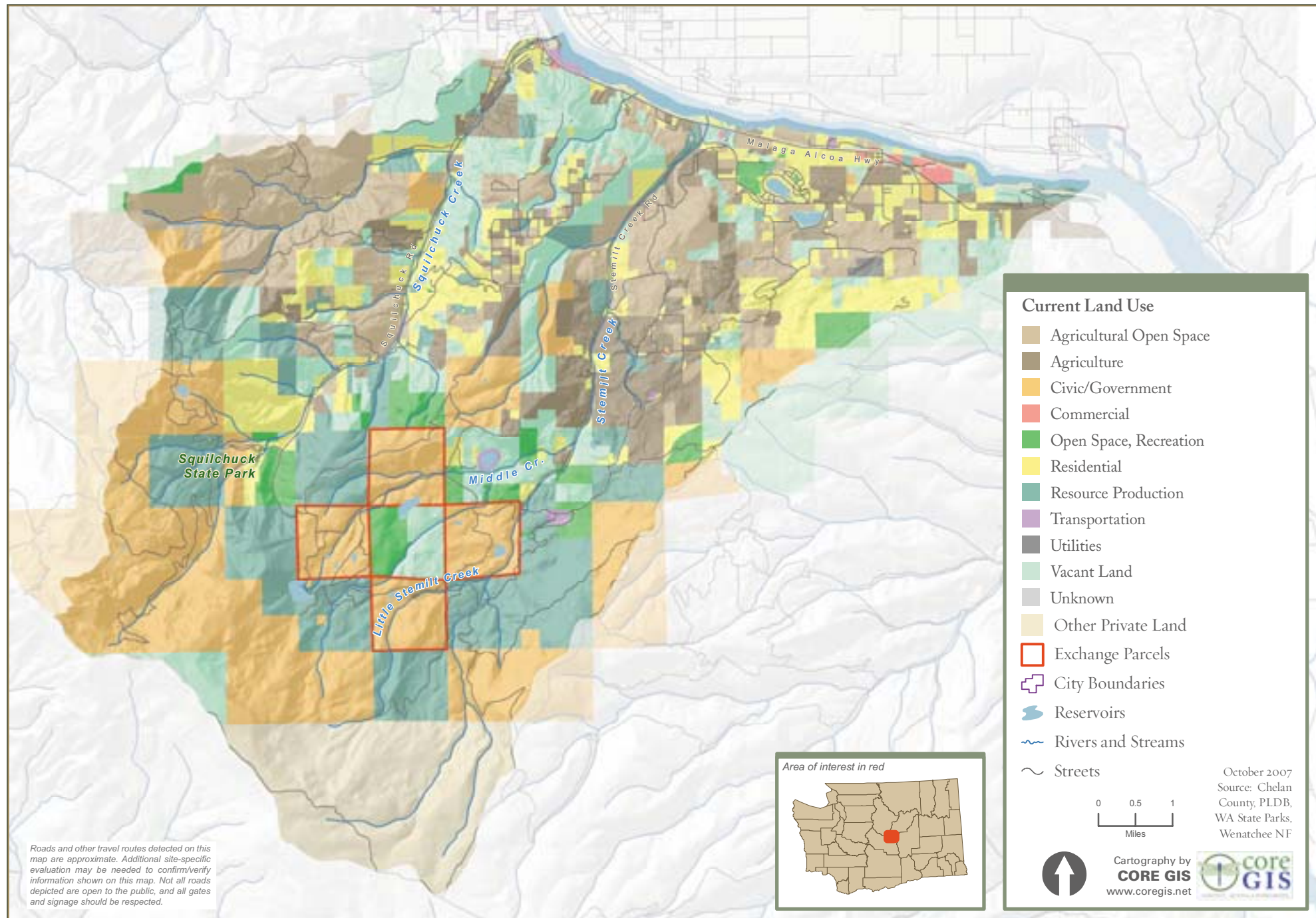
### Recreation Information Sources

Feature Type	Source
Key Access Points	Identified by Technical Subcommittee
Key Access Routes	Identified by Technical Subcommittee
Parking	Identified by Technical Subcommittee
Informal Campsites	Identified by Technical Subcommittee
Green Dot Roads	Provided by WDFW
Popular Hiking, Biking, and Equestrian Routes	Identified at community workshop and by Technical Subcommittee
Other Bicycle Routes	Identified by Wenatchee Valley Velo Club, David Stipe
Other Equestrian Routes	Identified by Tony Gillin, John Lemkuhl
Groomed Snowmobile Trails	Provided by Washington State Parks
Popular Fishing Reservoirs	Identified by Technical Subcommittee
Downhill Skiing	Digitized from color orthophotos
Generalized Hunting Areas	Identified by Technical Subcommittee

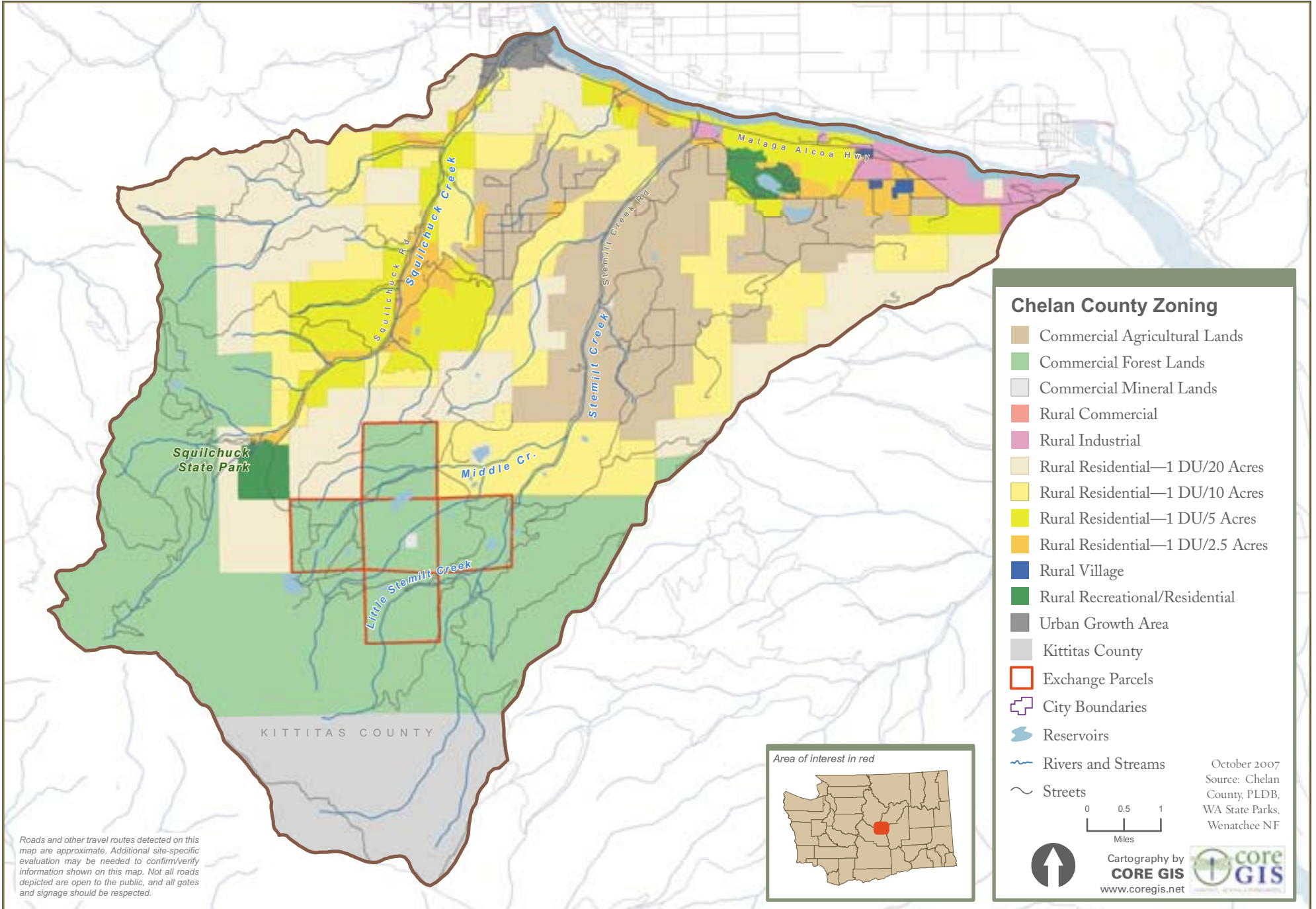




# MAP D.I CHELAN COUNTY CURRENT LAND USE



# MAP D.2 CHELAN COUNTY ZONING



# E. STEMILT-SQUILCHUCK CONSERVATION FINANCE FEASIBILITY STUDY

## CONTENTS

<b>Funding Sources for Land Conservation</b>	<b>74</b>	<b>Special Purpose Districts</b>	<b>85</b>
<i>State Programs</i>	74	<i>Park and Recreation Service Areas</i>	85
Washington Wildlife and Recreation Program	75	Financing a Park and Recreation Service Area	86
Trust Land Transfer Program	75	Formation of a Park and Recreation Service Area	86
Salmon Recovery Funding Board	76	<i>Irrigation Districts</i>	86
<i>Federal Programs</i>	77	<i>Implementation</i>	87
Cooperative Endangered Species Conservation Fund	77	<b>Local Conservation Finance in Washington</b>	<b>88</b>
Land and Water Conservation Fund (LWCF)	77	<b>Funding Quilt Case Studies</b>	<b>89</b>
Federal Aid in Wildlife Restoration (Pittman-Robertson Act)	78	<i>Gallatin County, Montana: Open Land Bonds</i>	89
Forest Legacy Program (FLP)	79	<i>Boise, Idaho: Foothills Conservation Levy</i>	90
National Fish and Wildlife Foundation Keystone Initiative			
Grants & Special Grants Programs	79		
State Wildlife Grants	80		
Bonneville Power Administration	80		
Transportation Enhancements (TE)	81		
NRCS Farm and Ranch Lands Protection Program (FRPP)	81		
<i>Local Revenue Options</i>	82		
Choosing a Funding Strategy	82		
Dedicated Local Funding Sources	83		
Supplemental Funds	84		



This brief study presents funding options potentially available to Chelan County for financing the acquisition, restoration, and maintenance of land (or development rights) for conservation purposes. There are a number of potential public funding options that can be knit together into a “funding quilt” to protect land and increase access to public land in the Stemilt-Squilchuck watershed.

A funding quilt is the combination of funding sources —state, federal, local, and private— that are brought together to help achieve conservation objectives. The most reliable form of funding to achieve conservation objectives over the long-term is local funding. Due to the competition for state, federal and private funding, these sources often serve as supplements or incentives.

This report starts with a summary of relevant state and federal conservation funding programs that may be leveraged by the county. This information is followed by an examination of the options for generating and dedicating local revenue for conservation including the revenue-raising capacity and costs of several financing tools. Together, the information on the following pages will provide a guide for considering public finance options to fund the conservation of open spaces in the county.

## **FUNDING SOURCES FOR LAND CONSERVATION**

### **State Programs**

In many respects, the State of Washington is a model of consistency and commitment towards conservation land acquisition among the 50 states. Year in and year out, through difficult economic times and ever-changing priorities, since 1990 state legislators have continued to approve between \$45 million and \$60 million toward land conservation programs each year. And millions more on top of that come in from federal sources. In the most recent biennium, the legislature approved \$100 million for Washington Wildlife and Recreation Program (WWRP) projects. This represents the largest single two-year investment in land conservation in the state’s history.

Most of the land-acquisition programs that administer these funds encourage the use of matching funds, if possible, to stretch each program’s funding base and maximize the goals of the program. Local government programs throughout the state aggressively seek state- and federal-matching funds available through a variety of conservation and recreation programs. State programs such as the Washington Wildlife and Recreation Program, the Salmon Recovery Board, the stateside Land and Water Conservation Fund program (in funded years), and the Division of Historical Resources Special Category Grants; and federal programs such as the Endangered Species (Section 6), federal Land and Water Conservation Fund, and Forest Legacy program, offer match-funding opportunities, though the dollar amounts available are usually quite limited. Because there are a number of these smaller programs, many will not be discussed in detail here.

## **Washington Wildlife and Recreation Program**

For most local governments seeking substantial acquisition funding and/or partnerships necessary to purchase property in today's real estate market, the programs that receive funds from the state's Wildlife and Recreation Program (WWRP) are at the top of the list.

The Resource and Conservation Office (RCO) is a state agency that serves the Resource and Conservation Funding Board (RCFB) and the Salmon Recovery Funding Board (SRFB). RCO's primary land conservation program is the Washington Wildlife and Recreation Program (WWRP), created by the Legislature in 1989. WWRP funding primarily comes from the sale of state general obligation bonds, with the legislature establishing funding levels on a biennial basis at approximately \$50 million. In 2007 funding levels were doubled to \$100 million.

State and local agencies are eligible for funding through WWRP, although a 50-percent match is required from local agencies. According to state statute, WWRP funds must be distributed equally between outdoor recreation and habitat conservation. WWRP grants are offered once every two years. The 2008 deadline for applications was May 1st. Contact the RCO at (360) 902-3000 or visit [www.rco.wa.gov](http://www.rco.wa.gov).

The WWRP programs most relevant to the Stemilt-Squilchuck Vision are listed below, along with their 2007-2009 appropriations.

In 2007 the Governor signed a two-year capital construction budget that increased funding for Washington Wildlife and Recreation Program (WWRP) grants to \$100 million. Those funds will be distributed as follows:

- Outdoor Recreation - \$36 million for state and local parks, trails, and shorelines.
  - Local Parks - \$10.8 million
  - State Parks - \$10.8 million
  - Trails - \$7.2 million
  
- Habitat Conservation - \$36 million for natural areas, urban, and critical habitat and land stewardship.
  - Critical Habitat - \$14.4 million
  - Natural Areas - \$10.8 million
  - Urban Wildlife Habitat - \$7.2 million
  
- Riparian Habitat Protection - \$19 million for acquisition or restoration of marine and fresh-water habitat areas.
  
- Farmland Preservation - \$9 million for conservation or restoration of working farms.

The amount of funding for the 2009-2011 WWRP will be established during the 2009 legislative session. The size of the appropriation by the 2009 Legislature will establish how much funding for projects will be available in the above categories. If the appropriation is again \$100 million, as it was in 2007, the above figures are likely to be the same. Since the WWRP only funds projects identified through the grant process, use of the WWRP for lands in the Stemilt-Squilchuck watershed requires that specific projects be proposed by May 1, 2008. WDFW submitted a project proposal in the Critical Habitat category for lands in the Stemilt-Squilchuck watershed.

## **Trust Land Transfer Program**

Launched in 1989, the Trust Land Transfer Program run by the Department of Natural Resources (DNR) is a unique program that funds school construction

while protecting Washington's natural resources. The program transfers school trust lands<sup>21</sup> suitable for natural or wildlife areas, parks, outdoor recreation, or open space to appropriate ownership while providing funding to schools equal to the timber or lease value of the transferred land. The program has successfully transferred ecologically valuable land out of trust lands and into appropriate conservation status with legislative appropriations. The program uses some funds to acquire properties that can be managed for greater returns for trust beneficiaries.

Some trust lands have low potential for income production due to factors such as steep, unstable slopes, critical fish and wildlife habitat, public use demands, environmental and social concerns, and other issues that complicate income production from certain trust lands. DNR identifies a list of such properties each biennium for consideration by the Board of Natural Resources and the Legislature as candidates for the TLT program. One key criterion is that candidate properties, in aggregate, have a high timber-to-land value to ensure the greater part of the appropriation is deposited directly to fund school construction in the current biennium. DNR coordinates the review and prioritization of the proposed list of transfer properties with other state agencies and programs. The list, along with maps and property descriptions, are assembled into an informational package that is presented to the Board of Natural Resources and then to the Governor's Office for submission to the Legislature. The Legislature reviews the proposal, determines the makeup of the final package, and sets an appropriation funding level. If approved, the transfer package is authorized and funded as a section in the Capital Budget Bill. Legislation generally provides for the direct funding of properties through the appropriation.

Since 1989, \$538,962,000 has been appropriated to fund the TLT Program. Over 79,000 acres of special Common School Trust property has been transferred to other public agencies or programs for protection and management. Agencies

---

<sup>21</sup>School trust lands are public lands (forest, agricultural, range, or commercial properties) owned and managed by DNR for the purpose of generating revenue to fund schools, universities and other institutions. DNR strives to improve returns from state trust lands. DNR manages more than three million acres of trust lands.

receiving land through the program include the DNR Natural Area Preserve and Natural Resource Conservation Area Programs, Washington State Department of Fish and Wildlife, Washington State Parks and Recreation Commission, county and city governments, and local public park districts.

The four DNR sections in the heart of the Stemilt-Squilchuck watershed may be eligible for the TLT program.

Contact: Everett Challstedt at [evert.challstedt@dnr.wa.gov](mailto:evert.challstedt@dnr.wa.gov) or (360) 902-1605.

### **Salmon Recovery Funding Board**

Funded by state and federal government, the Salmon Recovery Funding Board (SRFB) was created in 1999 by the state legislature to grant funds to protect or restore salmon habitat and assist related activities. The SRFB administers two grant programs, the Salmon Recovery Funding Board grants and the Family Forest Fish Passage Program (FFFPP). For SRFB grants, eligible applicants are cities, counties, non-profits, private landowners working on their own land, conservation districts, tribes, special purpose districts and regional fisheries enhancement groups. State agencies may apply but must have a local partner. Fifteen percent matching funds are required. The FFFPP is directed at small forest land owners who harvest from their own land and meet eligibility as described in Section 11 of SSHB 1095 and match is determined by cost estimate (see RCO requirements).

The SRFB grant program is coordinated by a local lead entity and other regional organizations. The Stemilt-Squilchuck area is WRIA 40A and included in the Chelan County Lead Entity area. Overseeing the Chelan County Lead Entity strategy is the Upper Columbia Salmon Recovery Board, a board that plans regionally for salmon recovery. Eligible applicants in WRIA 40A should



work with the Lead Entity and Salmon Recovery Coordinator at the county to develop their projects for funding in the SRFB process.

Contact: Marc Duboiski at [marcd@rco.wa.gov](mailto:marcd@rco.wa.gov) or (360) 902-3137.

## **Federal Programs**

All the programs discussed in this section are administered by federal agencies but vary in how funds are delivered for on-the-ground conservation projects. For example, some of these program funds are directed to the states, which in turn decide what projects to fund, while other program funds are granted by a federal agency through a competitive process. In still other cases, Congress may “earmark” funds for individual projects. The descriptions provided below are meant to provide a broad overview of funding sources. TPL can provide additional information on program rules and accessibility.

### ***Cooperative Endangered Species Conservation Fund***

#### **U.S. Fish and Wildlife Service**

<http://www.fws.gov/endangered/grants/index.html>

Grants offered through the Cooperative Endangered Species Conservation Fund (authorized under section 6 of the Endangered Species Act) support participation in a wide array of voluntary conservation projects for candidate, proposed, and listed species.

#### ***HCP Land Acquisition Grants***

Habitat Conservation Plan (HCP) Land Acquisition Grants provide funding to states and territories explicitly for land acquisitions that complement approved HCPs. These grants are available only for land purchases that go above and beyond the conservation responsibilities that nonfederal partners already bear under the terms of the HCP.

Specifically, the grants fund land acquisitions that complement but do not replace private mitigation responsibilities contained in HCPs; have important benefits for listed, proposed, and candidate species; and have important benefits for the ecosystems that support those species. In the last two fiscal years, Washington has received three HCP land acquisition grants totaling over \$11 million and conserving over 7,000 acres of endangered species habitat through this program.

#### ***Recovery Land Acquisition Grants***

Recovery Land Acquisition Grants provide funds to states and territories for the acquisition of habitat, through both fee and easement, in support of federally listed threatened and endangered species recovery. These funds must contribute to the implementation of a finalized and approved recovery plan for at least one species under the Endangered Species Act. In the last two fiscal years, Washington has received \$1 million in Recovery Land Acquisition grants.

### ***Land and Water Conservation Fund (LWCF)***

#### **U.S. Department of the Interior**

Created in 1965, the Land and Water Conservation Fund (LWCF) is the largest source of federal money for park, wildlife, and open space land acquisition. Specifically, LWCF provides funding to assist in the acquiring, preserving, developing, and ensuring accessibility to outdoor recreation resources, including but not limited to open space, parks, trails, wildlife lands, and other lands and facilities desirable for individual active participation. The program’s funding comes primarily from offshore oil and gas drilling receipts, with an authorized expenditure of \$900 million each year. Under this program, a portion of the money is intended to go to federal land purchases and a portion to the states as matching grants for land-protection projects.

*LWCF – Stateside*  
**(National Park Service through the Washington State Recreation and Conservation Office)**

<http://www.rco.wa.gov/rcfb/grants/lwcf.htm>

The stateside LWCF program provides a 50-percent match to states for planning, developing, and acquiring land and water areas for natural resource protection and recreation enhancement. Funds are distributed to states based on population and need. Once the funds are distributed to the states, it is up to each state to choose the projects, though the National Park Service has final approval. Eligible grant recipients include municipal subdivisions, state agencies and tribal governments, each of whom must provide at least 50-percent-matching funds from nonfederal sources in either cash or in-kind contributions and a detailed plan for the proposed project. Annual appropriations have ranged from a high of \$369 million in 1979 to four years of zero funding between 1996 and 1999. In FY 2006 and FY 2007, \$27.9 million was provided for stateside grants in each year. Just under \$25 million is provided for the program in FY 2008.

In Washington, the program is administered by the Recreation and Conservation Office, which received \$1.2 million in each of fiscal years 2006 and 2007. An applicant must submit a plan including goals and objectives, inventory, and a description of the public involvement process used. Recreation and Conservation Funding Board (RCFB) must accept the plan at least three months before the meeting in which the applicant's project is first considered for funding. Applications are usually due in the spring and are evaluated in a competitive process by an advisory committee. Applications are evaluated based on the technical merits of the project, the public/private partnerships, and how the project addresses the identified needs and priorities of Washington's statewide comprehensive plan (also called the State Comprehensive Outdoor Recreation

Plan, or SCORP). The advisory committee submits a ranked list to the RCFB for approval.

***Federal Aid in Wildlife Restoration (Pittman-Robertson Act)***  
**U.S. Fish and Wildlife Service**

<http://federalasst.fws.gov/wr/fawr.html>

Implemented in 1938, the Federal Aid in Wildlife Restoration Act, or more commonly known as the Pittman-Robertson Act, provides funding from the Department of the Interior for the selection, restoration, rehabilitation, and improvement of wildlife habitat, wildlife management research, and the distribution of information produced by the projects. Funds are derived from an 11-percent excise tax on sporting arms, ammunition, and archery equipment and a 10-percent tax on handguns. Funds are apportioned to appropriate state agencies on a formula based on the total area of the state and the number of licensed hunters in the state. Each state wildlife agency determines the best use of their apportioned funds and grants awards to projects based on these priorities. Grants can be awarded for wildlife management, to conduct habitat research, population studies and surveys, or hunter education programs, as well as to acquire lands for both wildlife and public access.

The program is a cost-reimbursement program in which the state applies for repayment of up to 75 percent of approved project expenses. The state must provide at least 25 percent of the project costs from nonfederal sources.

In FY 2007 and FY 2008, Washington is expected to receive around \$8 million in funding through this program.

## **Forest Legacy Program (FLP)**

### U.S. Forest Service (USFS)

[www.fs.fed.us/spf/coop/programs/loa/aboutflp.shtml](http://www.fs.fed.us/spf/coop/programs/loa/aboutflp.shtml)

[http://www.dnr.wa.gov/htdocs/amp/forest\\_legacy/final102504/](http://www.dnr.wa.gov/htdocs/amp/forest_legacy/final102504/)

The Forest Legacy Program (FLP) was established in 1990 to provide federal funding to states to assist in securing conservation easements on forestlands threatened with conversion to non-forest uses. Fee transactions are also used under the program, either for the whole transaction or combined with easements to achieve a state's highest conservation goals. A state voluntarily enters the program by submitting an Assessment of Need (AON) to the Secretary of Agriculture for approval. These plans establish the lead state agency, the state's criteria for Forest Legacy projects, and Forest Legacy areas (FLA) within which proposed Legacy projects must be located. Once the AON is approved, the state lead agency can submit up to three grants each year for projects within the FLAs. The federal government may fund up to 75 percent of project costs, with at least 25 percent coming from private, state, or local sources.

The process begins with the state's Forest Stewardship Committee, which ranks the projects submitted (usually by late spring) to the state lead agency for submittal to the U.S. Forest Service (USFS) regional Forest Legacy Program staff coordinator. Each state may submit up to three projects, totaling no more than \$10 million, and the deadline for submissions is usually late October or November. In early January, a national ranking committee composed of USFS and state representatives ranks all projects, with the project's resource importance, strategic contribution and threatened status given most consideration. Once a

level of funding has been established in the annual budget proposed by the White House, the USFS publishes a list of ranked projects up to that level of funding. To date, Congress has relied on that list, with a few tweaks, to determine an appropriations level for the FLP that may or may not match the President's budget recommendation.

In FY 2007, the Forest Legacy Program was funded at \$56.4 million, providing grants to states for 31 forest conservation projects. Washington received \$1.88 million through FLP for the Tahuya Headwaters Pope project located in Kitsap County. The Forest Legacy Area in Chelan and Kittitas counties extends generally eastward to the Columbia River and includes lands in the southern portion of the Stemilt-Squilchuck watershed<sup>22</sup>.

## **National Fish and Wildlife Foundation Keystone Initiative Grants & Special Grants Programs**

<http://www.nfwf.org/programs.cfm>

In 1984, Congress created the National Fish and Wildlife Foundation to benefit the conservation of fish, wildlife, plants, and the habitat on which they depend by attracting diverse investments to conservation and encouraging locally supported stewardship on private and public lands. Through their Keystone Initiatives Grant Program, NFWF funds projects to conserve and restore bird, fish, and wildlife populations as well as the habitats on which they depend. The Foundation awards matching grants to projects that address priority actions laid out by their strategic plan, work proactively to involve other conservation and community interests, leverage funding, serve multiple objectives, involve strong partnerships, and fit into a larger ecosystem approach to conservation. The most successful applications will display the long-term environmental benefits of a project that yields high-quality conservation returns.

---

<sup>22</sup> A map of the Forest Legacy Planning area in south Chelan County can be accessed online at: [http://www.dnr.wa.gov/Publications/amp\\_fl\\_map\\_nkitsokgn3.pdf](http://www.dnr.wa.gov/Publications/amp_fl_map_nkitsokgn3.pdf) (Accessed April 24, 2008).



Eligible grantees include federal, tribal, state, and local governments, educational institutions, and nonprofit conservation organizations. Grants range from \$50,000 to \$300,000 and typically require a 2:1 nonfederal match. Project proposals are received on a year-round, revolving basis with two decision cycles per year.

In addition to the Keystone Initiative matching grants, the Foundation administers a variety of special grant programs with specific conservation objectives, programmatic guidelines, and timelines. (See the Foundation's website for more information on these numerous grant opportunities or call NFWF's Western Partnership Office at (503) 417-8700.)

### **State Wildlife Grants**

#### **U.S. Fish and Wildlife Service**

<http://wsfrprograms.fws.gov/Subpages/GrantPrograms/SWG/SWG.htm>

Created by Congress in 2001, the State Wildlife Grants program is a matching-grant program available to every state in support of cost-effective, on-the-ground conservation efforts aimed at restoring or maintaining populations of native species before listing under the Endangered Species Act is required. In order to maximize the effectiveness of this program, Congress required each state to develop a comprehensive wildlife conservation strategy for the conservation of the state's full array of wildlife and the habitats upon which they depend. These plans identify species and habitats of greatest conservation need and outline the steps necessary to keep them from becoming endangered. The State Wildlife Grants program provides matching funds that are to be used to implement the conservation recommendations outlined in these state wildlife action plans.

Funds appropriated under the SWG program are allocated to every state according to a formula based on a state's size and population. Each state then determines the best use of their grant funds with the understanding that the money must be used to address conservation needs, such as research, surveys, species and habitat management, and monitoring, identified within a State's Comprehensive Wildlife Conservation Plan/Strategy. These funds may also be used to update, revise, or modify a State's Strategy. Each state has its own process for the prioritization and distribution of these funds. Since its inception in 2001, Washington has received almost \$10 million in matching funds from this program.

### **Bonneville Power Administration**

#### **U.S. Department of Energy**

The Bonneville Power Administration (BPA) is a power-marketing agency of the United States Department of Energy and supplies roughly half of the electricity used in the Pacific Northwest. Pursuant to various laws and agreements, BPA bears responsibility for fish and wildlife preservation, mitigation, recovery, and protection. Since 1980, BPA has incurred over \$6 billion in costs for its fish and wildlife obligations. As part of the development of the federal Columbia River power system alone, BPA acquired over 15,000 acres in fee title and easements or leases over roughly 3,700 acres at a cost of over \$65 million for wildlife habitat. BPA also contributed \$725,000 from its internal mitigation fund for the purchase of 350 acres for the Mountains to Sound Greenway in 2002.

Examples of a variety of BPA mitigation projects can be accessed on the BPA Web site, <http://www.efw.bpa.gov/>.

## ***Transportation Enhancements (TE)***

### U.S. Department of Transportation

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

<http://wsdot.wa.gov/TA/ProgMgt/GRANTS/ENHANCE.HTM>

The federal Surface Transportation Program provides states with funding for highway projects. States are allocated funds based on a combination of population, transportation systems, miles of roads, and other factors. Each state must reserve at least ten percent of its Surface Transportation Program dollars for transportation-enhancement (TE) activities. These enhancement projects include historic preservation, rails-to-trails programs, easement and land acquisition, transportation museums, water pollution mitigation, wildlife connectivity, and scenic beautification. All projects must be related, in some way, to transportation.

In each state, TE projects are selected through a competitive process. Applications are submitted by local government entities, often in partnership with nonprofit organizations. The federal government provides 80 percent of the funds and the municipalities need to contribute a 20-percent match.

In Washington, each Metropolitan Planning Organization (MPO) or Regional Transportation Planning Organization (RTPO) establishes its own criteria and selects projects up to the amount of TE funds sub-allocated to the region. Washington Department of Transportation's (WSDOT) statewide project selection criteria are used as a basis for regional selection procedures. Additionally, each MPO and RTPO submits its regionally selected list, plus up to five additional local project proposals not funded with regional TE funds, to WSDOT for competition in a statewide selection process. A statewide TE Selection Committee, consisting of representatives from WSDOT, cities, counties,

Indian Nations, and pedestrian, bicycle, trail, and historic/scenic groups, reviews these projects, ranks them, and makes final selections for funding. The federal government gives final approval to the projects and distributes the funds directly to the municipalities or nonprofits on a reimbursement basis.

In the 2006 round of funding, trail and sidewalk projects were funded in Chelan County. Nearly \$42 million was provided to projects statewide. No land-acquisition projects were funded in the state, but the TE Committee followed the priorities recommended by the MPOs and RTPOs. The RTPO for Chelan County is the North Central RTPO located in Wenatchee (<http://www.wsdot.wa.gov/regions/NorthCentral/>).

## ***NRCS Farm and Ranch Lands Protection Program (FRPP)***

### Department of Agriculture

<http://www.nrcs.usda.gov/programs/frpp>

The USDA Farm and Ranch Lands Protection Program provides matching funds to assist in the purchase of development rights to keep productive farm and rangeland in agricultural uses and works with state, tribal, or local governments and nongovernmental entities. Grants are awarded by the Natural Resource Conservation Service (NRCS) to states, local governments, and nongovernmental entities on a competitive basis, according to national and state criteria and require up to a 50-percent non-NRCS match to cover the cost of the easement. Up to 25 percent of donated land value can be counted as the match.

In FY 2007, Washington received \$1,178,980 in FRPP funding for conservation easements on 419 acres. The Cascadia Conservation District (CCD) is the local NRCS office for the Wenatchee area. The CCD can be contacted at 509-664-0275, <http://www.cascadiacd.org/>.

## Local Revenue Options

Nationwide, a range of public-financing options has been utilized by local jurisdictions to fund parks/open space preservation, including general obligation bonds, the local sales tax, and the property tax. Less frequently used mechanisms have included special assessment districts, real estate transfer taxes, impact fees, and income taxes. In Washington, local government funding options for land conservation have primarily taken the form of budget appropriations, property taxes, general obligation bonds backed by property taxes, sales tax, and less frequently, impact fees and the real estate transfer tax. Many communities also have had success in leveraging local sources with funds from Washington's state conservation programs and some federal programs.

### **Choosing a Funding Strategy**

While most local governments can create funding for land conservation through their budgetary process, this either happens infrequently or does not yield adequate funding. In so-called “emergency room conservation” a city or county may rally to make an emergency appropriation to purchase a piece of land to avoid imminent loss to development or other use that impacts its natural or agricultural resource value. However, this is a high-risk strategy and one that often requires the local government to pay a high price to conserve land.

In TPL's experience, local governments that create funding via the legislative process provide substantially less funding than those that create funding through ballot measures. As elected officials go through the process of making critical budgetary decisions, funding for land conservation lags behind other public purposes, and well behind what voters would support. It is understandably often quite difficult to raise taxes without an indisputable public mandate for the intended purpose.

The power of conservation finance ballot measures is that they provide a tangible means to implement a local government's vision. With money in hand, local governments can proactively approach landowners to negotiate with them to protect land now, before bulldozers are ready to plow it under, and before land prices rise sky high. With their own funding, local governments are much better positioned to secure scarce funding from state or federal governments or private philanthropic partners. Rather than being “stuck with the rest,” local governments can go out and “protect the best.” Having a predictable funding source typically empowers the city or county to establish conservation priorities that protect the most valuable resources, are geographically distributed, and otherwise meet important community goals and values.

Overall, voter support of local conservation finance measures in Washington has been mixed. Roughly 40 percent of measures (20 of 50) on the ballot between 1998 and 2007 were approved, though the record has improved in recent years with 67 percent of measures (8 of 12) passing since 2004. Success at the ballot is hampered somewhat in the state by the high approval threshold (60 percent of the vote) required for local bond measures. TPL and its affiliate The Conservation Campaign<sup>23</sup> have supported 12 local conservation finance measures in Washington, 7 of which were approved. See the following “Local Conservation Finance in Washington” section for a full list of successful measures.

However, conservation finance measures are not right for every local government or they might not be the right approach at the moment. Budget appropriations and other revenue sources that can be implemented through the legislative process may well serve as short-term funding options while parks and conservation proponents develop a strategy and cultivate broad support for longer-term finance options.

---

<sup>23</sup> The Conservation Campaign (TCC) is a non-profit 501(c)(4) organization affiliated with TPL. TCC mobilizes public support for ballot measures and legislation that create public funds to protect land and water resources.



## Dedicated Local Funding Sources

Significant, dedicated funding generally comes from broad-based taxes and/or the issuance of bonded indebtedness. The following options present opportunities for financing land conservation in Chelan County:

### Property Tax

Chelan County may ask voters to increase the regular county property tax via a levy lid lift, which requires majority approval of voters in the county at a general or special election. For example, a 0.1 percent increase in the property tax levy would generate just under \$700,000 annually at a cost of \$24 per year to the average homeowner in the county.

### Conservation Futures Property Tax

Chelan County also may levy a Conservation Futures Tax at the maximum rate of \$0.0625 per \$1,000 of assessed value (or \$6.25 per \$100,000 value). The county could impose this tax via an ordinance or resolution of the Board of County Commissioners. Revenues generated from the Conservation Futures Tax may be expended for the acquisition of development rights and other real property rights and interests of any open space land, farm and agricultural land, and timberland and the operation and maintenance of such lands. Implementing this tax at the full \$0.0625 levy would generate roughly \$434,000 annually and cost the average homeowner \$15 per year.

Tax Rate Increase	Assessed Valuation	Annual Revenue	Cost / Avg. House
0.0625	\$ 6,935,361,591	\$433,460	\$15
0.10	\$ 6,935,361,591	\$693,536	\$24
0.15	\$ 6,935,361,591	\$1,040,304	\$36
0.20	\$ 6,935,361,591	\$1,387,072	\$48

Sources: Total county assessed value, Chelan County Levy Book 2008;  
median home price \$238,900, Q2 2007, Washington Ctr for Real Estate, WSU

### Bonding

Chelan County could issue general obligation bonds and levy property taxes to pay the debt service on the bonds. For unlimited tax general obligation bonds, 60 percent of the electorate must approve issuance of general obligation bonds, which must be validated by a voter turnout of at least 40 percent of those who voted in the last general election. The county could also issue revenue bonds; however a revenue source must be identified to pay the debt service on these bonds. A \$5 million general obligation bond, payable over 20 years, would cost the average homeowner approximately \$14 annually.

Bond Issue Size	Annual Debt Svce	Tax Rate Increase	Cost/ Year/ \$239K House
\$5,000,000.00	\$401,212.94	0.06	\$14
\$10,000,000.00	\$802,425.87	0.12	\$28
\$20,000,000.00	\$1,604,851.74	0.23	\$55
\$30,000,000.00	\$2,407,277.62	0.35	\$83

Sources: Total county assessed value, Chelan County Levy Book 2008;  
median home price \$238,900, Q2 2007, Washington Ctr for Real Estate, WSU

### Sales and Use Tax

Chelan County does not have any capacity to impose additional sales and use tax for parks and open space, though it may dedicate a portion of existing sales tax revenue for parks and open space purposes.

### Real Estate Excise Tax

In its unincorporated areas, Chelan County may levy a Conservation Areas Real Estate Excise Tax (REET) upon purchasers of real property of up to one

percent to fund conservation areas. A majority of county voters must approve the tax at a specified rate and for a specified period of time.

The money generated by the additional one percent REET is used exclusively for the acquisition and maintenance of conservation areas, defined as “land and water that has environmental, agricultural, aesthetic, cultural, scientific, historic, scenic, or low-intensity recreational value for existing and future generations, and includes, but is not limited to, open spaces, wetlands, marshes, aquifer recharge areas, shoreline areas, natural areas, and other lands and waters that are important to preserve flora and fauna.”<sup>24</sup> In Washington, only San Juan County has exercised its authority to levy this conservation area REET.

### Special Purpose Districts

Special purpose districts, such as park and recreation districts, park and recreation service areas, public facilities districts, public utility districts, and water-sewer districts, may levy property taxes and/or assessments, or issue general obligation bonds for parks and recreational facilities. A public facilities district may also levy sales taxes. In general, approval of 60 percent of 40 percent of voters who participated in the last preceding general election is necessary to implement these financing mechanisms. In some cases formation of a district requires a petition signed by registered voters in the proposed district and subsequent approval by a majority of voters, though park and recreation service areas and public facilities districts may be initiated by resolution of the Board of County Commissioners. Special districts are discussed in somewhat more detail in “Special Purpose Districts” section of this report.

Of these options, the Conservation Futures property tax presents the best option for Chelan County to fund parks and open space. The county may levy up to \$0.0625 per \$1,000 of assessed value (or \$6.25 per \$100,000 value) to acquire development rights and other real property rights and interests of any

---

<sup>24</sup> §36.32.570.

open space land, farm and agricultural land, and timberland and to operate and maintain such lands. Besides offering dedicated funding for land conservation acquisition and stewardship, the Conservation Futures Tax may be levied by the county without approval of the voters and is not subject to limitations upon regular property tax levies. Should Chelan County impose the Conservation Futures Tax, it could raise an estimated \$434,000 a year for parks, open space, and land conservation throughout the county.

### **Supplemental Funds**

Additional local revenue sources could be sought to supplement a county open space program, such as impact fees associated with development projects and recreation user fees. Impact fees, or monetary exactions other than a tax or special assessment, are levied by counties, cities and towns in connection with the approval of a development project to defray all or part of the cost of public facilities related to the development project. Public facilities include publicly owned parks, open space and recreational facilities; public streets and roads; school facilities; and fire protection facilities.<sup>25</sup>

In general, impact fees may not exceed the estimated reasonable cost of providing the service or facility and shall not be levied to make up for deficiencies in public facilities serving existing developments. Impact fees also may not be used for maintenance and operation. The local ordinance by which impact fees are levied must include a schedule of impact fees, which shall be adopted for each type of development activity based on a formula, or other such calculation that considers the cost, availability of other funding, amongst other items.<sup>26</sup> Proceeds from impact fees must be earmarked specifically and retained in special interest-bearing accounts, and must be expended or encumbered within six years of receipt.<sup>27</sup>

---

<sup>25</sup> §82.02.090(7).

<sup>26</sup> §82.02.060.

<sup>27</sup> §82.02.070.

Drawbacks to impact fees include potential opposition from developers and affordable housing advocates, as the fees are generally passed on to buyers in the form of higher prices. Also, fees are often used in very specific locations, although they have in some instances been utilized to provide city and countywide services.

Other smaller local revenue sources exist to support a county parks and conservation program, such as donations, bequests, and philanthropic support, but have not been examined in this report. Within Washington, even the most successful land trusts and conservation organizations have very limited financial resources in comparison to formal, funded local government programs.

## **Special Purpose Districts**

In Washington, special purpose districts are limited purpose local governments separate from a city, town, or county government. Generally they perform a single function, though some perform a limited number of functions. They provide an array of services and facilities including electricity, fire protection, flood control, health, housing, irrigation, parks and recreation, library, water-sewer service and more recently stadiums, convention centers, and entertainment facilities that are not otherwise available from city or county governments. Over the years, the Washington legislature has enabled more than 80 different special purpose districts.

Special purpose districts are generally created through the county legislative authority to meet a specific need of the local community. The need may be a new service or a higher level of an existing service. The districts are usually quasi-municipal corporations though some are statutorily defined as municipal corporations.

Most special purpose districts in Washington derive revenues from real property assessments and are called taxing districts. The Department of Revenue uses the term “benefit assessment district” to mean a district formed to provide a specific service or benefit to lands contained within its boundaries. A district’s charges are based on the benefit to property rather than value of the property. Districts that can levy a benefit assessment include diking and drainage districts, horticultural districts, irrigation districts, mosquito districts, river and harbor improvement districts, and weed districts.

While there are some 80 different special purpose districts, the legislature has narrowly defined the purposes of these districts and their revenue authority. As such, it does not appear that authorization exists for creation of a special district that is specifically permitted to acquire land for open space purposes.

There are two types of districts that may offer potential as a vehicle for conserving land in the watershed – they are a Parks and Recreation Service Area and an Irrigation District.

### ***Park and Recreation Service Areas<sup>28</sup>***

Any county may create park and recreation service areas to finance, acquire, construct, improve, maintain, or operate any park, senior citizen centers, zoos, aquariums, and recreation facilities. Such facilities must be owned or leased and administered by a county, city or town, or park and service area. As a quasi-municipal corporation, a park and recreation service area may purchase athletic equipment; provide for the upkeep of park buildings, grounds and facilities; and provide custodial, recreational and park program personnel.

The county legislative authority serves as the governing body of any park and recreation service area created within the county, and areas including city and

---

<sup>28</sup> §§36.68.400 to .620.



towns must be governed by an interlocal agreement. After a park and recreation service area is organized, it may be enlarged to include additional area.

The stated statutory purpose for allowing the creation of park and recreation service areas is to provide a higher level of park services and shall not diminish the right of a county to provide a general park program financed from current expense funds.<sup>29</sup>

As of January 2004, seven park and recreation services areas exist in Washington State in the following counties: Clallam, Kittitas, Snohomish, Spokane, Yakima, and King County has two park and recreation service areas.<sup>30</sup>

### Financing a Park and Recreation Service Area

To finance capital or operational expenditures, park and recreation service areas may levy property taxes or issue general obligation bonds. The petition or resolution forming the district may propose that the initial capital or operational costs be financed by regular property tax levies for a six-year period, an annual excess levy, or issuance of general obligation bonds for capital costs upon approval of voters in the proposed district.<sup>31</sup> Details of these finance mechanisms are similar to the park and recreation district financing, with the exception that park and recreation service areas may issue general obligation bonds together with any voter and nonvoter-approved debt equal to 2.5 percent of the value of taxable property (1.25 percent for park and recreation districts).

### Formation of a Park and Recreation Service Area<sup>32</sup>

A park and recreation service area may be initiated in unincorporated areas of the county by resolution adopted by the county legislative authority or by a petition signed by ten percent of registered voters within the proposed area.

---

<sup>29</sup> §36.68.590.

<sup>30</sup> "Number of Known Washington Special Purpose Districts as of January 2004," Municipal Research and Services Center of Washington.

<sup>31</sup> §36.68.480.

<sup>32</sup> §§36.68.410 to .470.

Incorporated areas may be included via a certified copy of the resolution of the governing body of the city or town that approves inclusion within the service area.<sup>33</sup>

The resolution or petition must include the proposed boundaries, description of the purposes for formation, and estimate of initial cost of any capital improvements or services authorized in the service area. For the first year of operation, initial costs include "land to be acquired or leased for neighborhood park purposes by the service area to establish a park or park facility specified in the resolution or petition," capital improvements, formation costs, and personnel, maintenance, or operation expenses.

If the petition is accepted or resolution passed for the formation of a service area, the county legislative authority must order a feasibility and cost study; hold a public hearing; and find whether or not the service area's objectives align with the county's comprehensive park plan and general park policies, the exact boundaries of the service area, a full explanation of the improvements or services to be financed by the service area, whether the objectives of the service area are feasible, and the number or name of the service area. If the findings are satisfied, a majority of voters in the proposed service area must approve formation of the park and recreation service area.<sup>34</sup>

### **Irrigation Districts**

There are several irrigation districts within Chelan County. In addition to the primary purposes for which irrigation districts are authorized (i.e. construction or purchase of works for the irrigation of lands), they may participate in and expend revenue on cooperative watershed management actions, including

---

<sup>33</sup> §36.68.610.

<sup>34</sup>The proposition must substantially state as follows:

**FORMATION OF PARK AND RECREATION SERVICE AREA**

Shall a park and recreation service area be established for the area described in a resolution of the legislative authority of... County, adopted on the ....day of .....20...., to provide financing for neighborhood park facilities, improvements, and services?

Yes..... No.....

<sup>35</sup> §87.03.019.

watershed management partnerships and other intergovernmental agreements, for purposes of water supply, water quality, and water resource and habitat protection and management.<sup>36</sup>

A watershed management partnership may create a “separate legal entity” to conduct the cooperative undertaking of the partnership. Such a separate legal entity may contract indebtedness and may issue general obligation bonds.

### **Implementation**

If either of these districts seems to be an appropriate vehicle for conserving land in the watershed, then additional information would be needed to determine the revenue-generation capacity of the entity, including the potential boundaries of the district, the taxable value of all property, current overlapping tax rates, and the number of parcels. In addition, since there is little precedent for utilizing such districts for land conservation purposes, it is advisable to obtain a formal legal opinion on the subject.

## **LOCAL CONSERVATION FINANCE IN WASHINGTON**

Local Washington Conservation Measures Approved by Voters 1998-2007

<b>Jurisdiction Name</b>	<b>Date</b>	<b>Description</b>	<b>Total Funds Approved</b>	<b>Conservation Funds Approved</b>	<b>% Yes</b>
Bainbridge Island	Feb-95	Proposition No. 1, Bond issue for acquisition and development of specified lakefront property	\$2,575,000	\$1,287,500	64%
Bainbridge Island	Nov-01	Proposition 1; Bond for acquisition and preservation of forested areas, open space, wildlife habitat, farms, and trails and park creation	\$8,000,000	\$8,000,000	68%
Bellingham	Nov-90	Property tax for \$7,000,000 for open space	\$7,000,000	\$7,000,000	67%
Bellingham	Nov-97	Property tax for \$20,000,000 for open space	\$20,000,000	\$15,000,000	58%
Bellingham	May-06	10-year, 57 cents per \$1000 property tax increase to fund the acquisition of greenways, open space, parks, and trails	\$44,000,000	\$44,000,000	59%
Gig Harbor	Nov-04	Bond to acquire waterfront open space and land to initiate restoration of boatyard for historical, cultural, and recreational purposes	\$3,500,000	\$3,500,000	62%
Greater Clark Parks District	Feb-05	27 cents per \$1,000 property tax to create a metropolitan parks district	\$40,000,000	\$40,000,000	50%
Issaquah	Nov-88	Bond to purchase parkland	\$600,000	\$600,000	61%
Issaquah	Nov-06	Bond for the purchase of natural areas, parks, and trails, and for park improvements	\$6,250,000	\$3,500,000	74%

<sup>36</sup> §39.34.210.

## LOCAL CONSERVATION FINANCE IN WASHINGTON, CONTINUED

Local Washington Conservation Measures Approved by Voters 1998-2007

Jurisdiction Name	Date	Description	Total Funds Approved	Conservation	
				Funds Approved	% Yes
King County	Nov-89	Bond for green space, open space, parks and trail acquisition and improvement	\$117,640,000	\$117,640,000	67%
King County	Aug-07	6-year, 5 cents per \$1,000 of assessed valuation for open space and trail acquisitions and for the Woodland Park Zoo	\$105,000,000	\$84,000,000	59%
Kirkland	Nov-02	Levy for Park Safety, Improvements and Maintenance; Bonds for open space, natural areas, wildlife habitat, playgrounds, playfields and parks	\$8,400,000	\$1,000,000	64%
Metro Parks Tacoma	Nov-05	Park improvement bond with some funding for land acquisition (3/5 required)	\$84,300,000	\$5,000,000	62%
Olympia	Sep-04	3% utility tax increase for parks, open space, and sidewalks	\$45,000,000	\$30,000,000	57%
Puyallup	Nov-97	Proposition No. 1, Bond for Purchase and Development of Bradley Lake Property	\$5,900,000	\$5,900,000	70%
San Juan County	Nov-99	Land Bank Proposition, 12-year, 1 percent real estate exise tax for conservation	\$18,000,000	\$18,000,000	73%
Seattle	Nov-00	Property tax increase for park maintenance and acquisition	\$59,024,000	\$31,000,000	55%
Shoreline	May-06	Bond for open space, parks and trails	\$18,795,000	\$10,000,000	70%
Spokane County	Nov-97	5-year, .6 mill Property Tax Extension for the Existing Conservation Futures Tax for Parks, Open Space, Agricultural Lands, Water Quality, Wildlife Habitats	\$5,000,000	\$5,000,000	54%
Spokane County	Nov-02	5-year, 6 cents per \$1000 property tax extension for open space, water quality, agricultural land	\$5,500,000	\$5,500,000	60%
			\$604,484,000	\$435,927,500	



## Funding Quilt Case Studies

Below are two examples of how communities in the West are leveraging multiple funding sources to acquire land for the protection of agricultural lands, water resources, and the provision of open space, and recreation.

### **Gallatin County, Montana: Open Land Bonds**

Over the past 35 years Gallatin County, in the Northern Rockies, saw its population increase by nearly 140 percent. To respond to growth and the community's desire to protect working ranches, Gallatin County pursued the development of an Open Land Conservation System implemented through various county plans, task force reports and regulatory changes. The Gallatin County Open Lands Board, a 15-member citizens' advisory panel, in conjunction with the Gallatin County Commission, the Planning Department, federal conservation agencies, local land trusts, conservation organizations, including The Trust for Public Land (TPL), and other stakeholders provided input and information throughout the strategic planning process.<sup>37</sup>

To support the Open Land Conservation System, citizens were asked in 2000 and 2004 to authorize the county to sell up to \$10 million dollars in General Obligation Bonds, for conservation of agricultural and natural resource lands and water quality and quantity and to provide recreational opportunities. The voters overwhelmingly approved the two requests for a total of \$20 million. In FY 04 the county also began receiving revenues generated by the sale of Open Land license plates.

The county's Open Lands Board reviews and approves all open space expenditures. The county has been extremely successful in leveraging its local bonds with state and federal money, including matching funds from the federal Farm and Ranchland Protection Program (FRPP), and from private donations, especially from the Doris Duke Charitable Foundation. To date the Open Lands

<sup>37</sup> Gallatin County Open Land Board History and Strategic Plan, January 1, 2008. [http://www.gallatin.mt.gov/Public\\_Documents/gallatincomt\\_openlands/chapter1rebuild.pdf](http://www.gallatin.mt.gov/Public_Documents/gallatincomt_openlands/chapter1rebuild.pdf)

Board has completed 22 conservation easements and three park projects. The value of completed easements is more than \$60 million. The county leveraged its investment of \$12 million in local bond funds for easements by nearly \$5 to \$1 through funding from state and federal agencies and private donations of money and land value.<sup>38</sup>

For example, TPL, together with Gallatin Valley Land Trust (GVLVLT), Gallatin County Open Lands Board and Natural Resource Conservation Service (NRCS), completed a major conservation easement purchase, which protected 1,572 acres of farm and rangeland in the heart of the Gallatin Valley. The project was the largest conservation easement purchase ever funded in Montana through the FRPP. The easement, which has been appraised at \$2,170,000, was purchased for a bargain price of \$1,075,000. Funding for the purchase includes \$437,500 from the Gallatin County Open Space Program, \$537,500 from the FRPP, and \$100,000 from the Doris Duke Charitable Foundation as part of its Greater Yellowstone Land Protection Initiative. The conservation easement, which significantly limits the future development potential of the property, allows traditional farming and ranching activities to continue and will be held by the Gallatin Valley Land Trust for long-term monitoring and stewardship.

<sup>38</sup> Ibid.

### **Boise, Idaho: Foothills Conservation Levy**

For more than 30 years, Boise City officials, staff and citizens have thoughtfully considered plants, wildlife, rivers, slopes, recreation and public open spaces integral to the quality of life in their community. Numerous planning efforts have guided the city's growth and protected its natural resources, setting the table for an important community decision: How does the community protect public open space in the Boise foothills in the face of increasing development pressure? With leadership of the Mayor, City Council and a grass-roots community coalition, the citizens of Boise passed a \$10 million serial levy on May 22, 2001. The levy provides the city with an important tool to work with private property owners in conserving important open space corridors and creating a valuable public resource for future generations.<sup>39</sup>

The Foothills Conservation Advisory Committee, a 12-member body, appointed by the Mayor and confirmed by City Council, makes recommendations for the permanent protection of natural open space in the Boise Foothills and ensures that levy funds are spent wisely. As of the end of 2007, the City of Boise has protected a total of 3,198 acres with a market value of more than \$27 million. The city leveraged its investment of \$6 million in local levy funds by nearly \$4 to \$1 through funding from state and federal agencies and private donations of money and land value.

---

<sup>39</sup> Excerpted from City of Boise.org. <http://www.cityofboise.org/Departments/Parks/Foothills/Conservation/History/page12101.aspx>

## F. STEMILT PARTNERSHIP IMPLEMENTATION FRAMEWORK

The purpose of the implementation framework is to provide the Partnership with concrete next steps to work toward the community vision of protecting water, wildlife, and recreational resources in the watershed. The framework should be expanded and regularly updated as the Partnership defines a short- and long-term work plan.

Strategy/Action	Lead/ Key Partners	Time frame	Status
<p>1. Support public ownership proposals of high-conservation-value lands in the watershed.</p> <p>a. Support Washington Department of Fish and Wildlife's efforts to acquire all or part of Sections 1, 7, 29, 33, 27, 26, 23, 13.</p> <p>b. Pursue Trust Land Transfer funding to acquire the four (4) Department of Natural Resources sections (Sections 16, 20, 22, 28) and transfer ownership to Washington Department of Fish and Wildlife.</p>	<p>WDFW, Stemilt Partnership members</p> <p>Chelan County, DNR, WDFW</p>	<p>Ongoing</p> <p>Fall 2008- Winter 2009</p>	<ul style="list-style-type: none"> <li>• WDFW submitted proposal for 2008/9 WWRP Critical Habitat program</li> <li>• Chelan County nominated the 4 sections for the 2008/9 TLT program</li> </ul>
<p>2. Explore private land-stewardship opportunities of high-conservation-value lands in the watershed.</p> <p>a. Identify private lands of high-conservation value in watershed.</p> <p>b. Identify tools and opportunities for private land stewardship.</p> <p>c. Meet with landowners to discuss plan and opportunities for private land stewardship.</p>	<p>Stemilt Partnership</p> <p>Chelan County, CDLT, WDFW</p> <p>Chelan County</p>	<p>Winter-Spring 2009</p> <p>Winter-Spring 2009</p> <p>Spring-Summer 2009</p>	
<p>3. Resolve road easement issues on the four (4) DNR sections.</p> <p>a. Convene meeting between Chelan County, DNR, Glen Clock, and others to layout needs, timing, and strategy for completion of survey.</p>	<p>Chelan County, DNR, Irrigation Districts</p>	<p>Fall 2008</p>	



## F. STEMILT PARTNERSHIP IMPLEMENTATION FRAMEWORK, CONTINUED

Strategy/Action	Lead/ Key Partners	Time frame	Status
4. Work with the WRIA 40A planning team to coordinate implementation activities with proposals and activities related to community vision and plan. <ul style="list-style-type: none"> <li>a. Provide Stemilt Partnership with regular update on WRIA 40A activities and plans, and discuss opportunities for coordination.</li> </ul>	Chelan County	Ongoing	
5. Address future management issues and opportunities of upper watershed lands. <ul style="list-style-type: none"> <li>a. Convene discussion to address seasonality needs of wildlife in the watershed; compare with recreational use and discuss balanced management approach.</li> </ul>	Chelan County, WDFW	Winter 2008-9	
6. Raise awareness and build community support for the Stemilt Partnership and secure buy-in for future of collaboration. <ul style="list-style-type: none"> <li>a. Finalize community vision report and share with community to gather input and gain community support.</li> <li>b. Organize legislative tour of the Stemilt to educate legislators about issues and opportunities in the watershed and the visioning process.</li> <li>c. Gather Stemilt Partnership to develop specific work plan and action agenda for 2009-10.</li> </ul>	Stemilt Partnership, Chelan County Stemilt Partnership, Chelan County Stemilt Partnership, Chelan County	Fall 2008 Fall 2008 Fall-Winter 2008	

---

THE  
TRUST  
*for*  
PUBLIC  
LAND

---



---

CONSERVING LAND  
FOR PEOPLE

THE TRUST FOR PUBLIC LAND  
NORTHWEST REGIONAL OFFICE  
1011 WESTERN AVE. SUITE 605  
SEATTLE, WA 98104  
TEL (206) 587-2447  
FAX (206) 382-3414