

## References (underlining added)

### Elk

Elk need both forage and cover. Their preferred habitat includes a mix cover (trees and shrubs) and open fields. The grasses and forbs they prefer in summer do not grow well in dense shade. As a general rule, they do not like humans or cars.

Quotes from "Oregon's Elk Management Plan, February 2003" by ODFW:

"Numerous studies have shown ... Roosevelt elk are sensitive to human disturbances such as motorized travel on and off roads" p. 16

"Summer elk forage consists of a combination of lush forbs, grasses, and shrubs high in nutrients and easily digestible. Generally, higher elevation wet meadows, springs, and riparian areas in close proximity to forested stands offer these conditions for the longest period. Such areas provide nutritious forage and moist, cool places for bedding and escaping summer heat and insects." p. 19

"Cover is an important component of elk habitat and provides both thermal and hiding properties. During summer it provides cooler, shaded areas for elk to bed during the heat of the day. During winter it provides a warmer, protected environment out of the cold, wind, rain, or snow. Lichens and other plants associated with cover can be an important source of forage for wintering animals... Hiding cover is also referred to as security cover and allows elk to escape and hide from intrusions or disturbances. These intrusions can be human (hunters, vehicles, hikers, etc.) or natural (predators)." p. 20

"Adequate quality forage greatly influences the size and productivity of elk herds occupying an area." p. 20

"densely stocked to overstocked tree stands in some areas. The result is federal forestlands in Western Oregon are increasingly lacking in adequate forage conditions." p. 21

"It is documented in numerous studies that human access to elk habitat due to increased road density can negatively affect elk habitat utilization and increase elk vulnerability... Habitat Effectiveness models developed from these studies all concluded that the effectiveness of habitat for elk declines as road density increases." p. 30

### Agriculture

From the ODA agricultural study (Identification and Assessment of the Long-Term Commercial Viability of Metro Region Agricultural Lands, January 2007)

"Examples of current trends include:

- Increasing uncertainty about long-term energy supplies.
- Increasing demand for biofuels/energy development.
- The growing demand for organic, sustainable, high quality foods both in the home and at restaurants.
- Increasing demand for food products from a local food shed.
- New conservation incentives and other programs related to renewable energy and farmland protection including the ability of working farms to operate.

These trends suggest that lands not always considered to be important to the region's agricultural base may now merit greater or equal consideration. Areas considered impacted due to parcelization, parcel size and nonfarm development may be suited to more intensive operations on a smaller parcel. ... The region may value and wish to protect areas that are characterized by operations responding to these trends." (page 64)

From a West Multnomah Soil and Water Conservation District press release, December 1, 2008:

**"Greg Malinowski**, of Malinowski Farms, was honored as the ***Outstanding Partner of the Year***. Malinowski has a strong and longstanding commitment to dedicate a portion of his land to natural habitat preservation. Greg has worked with the WMSWCD for many years, as a matter of fact; his father was the agency's first contact decades ago. Greg took over the family farm in the early nineties and, with his brother Richard, started trying different ways to make farming a viable enterprise while always doing "the right thing –" not always an easy proposition. Greg collaborated with EMSWCD to develop his first NRCS-level conservation plan, as part of his certified planner training, which involved conducting inventories on his property and analyzing alternative actions."

#### **Urban/Rural Edge on the eastern side of North Bethany**

Both Metro and the Oregon Court of Appeals have noted that Abbey Creek, the powerlines, and the county line form a buffer between urban and rural uses.

Exhibit C to Metro Ordinance No. 02-987A FOR THE PURPOSE OF AMENDING THE URBAN GROWTH BOUNDARY TO ADD LAND IN THE BETHANY AREA, adopted December 12, 2002 says:

"The inclusion of all of areas 84-87 allows Abby (sic) Creek and the adjoining riparian zone to form a natural buffer separating the Bethany area from the resource land and existing rural neighborhoods to the north, and it utilizes the powerlines and also the Multnomah County line as clear demarcations along the expansion area's eastern border." (page 2)

"The Bethany expansion area will have clear boundaries that serve to both visibly highlight the line separating urban and rural uses, and to also serve as a buffer between urban development and rural uses. NW 185<sup>th</sup> Avenue, Abby (sic) Creek and its adjoining riparian zone and slopes and the powerline easement coupled with the Multnomah County boundary line all serve to clearly demarcate and buffer the proposed expansion area. " (page 9)

These elements were also cited as buffers in the Oregon Court of Appeals decision affirming the North Bethany UGB expansion area (text is paraphrased from an email from Jim Emerson to Chuck Beasley on April 16, 2009):

Case # A122169 (which decision was consolidated with case #'s A122246 and A122444,) "City of West Linn et al V. LCDRC et al" was decided by the Oregon Court of Appeals on September 8, 2005. In affirming the inclusion of Areas 84-87 (North Bethany) into the UGB, the Court said: "The Bethany expansion area will have clear boundaries that serve to both visibly highlight the line separating urban and rural uses, and to also serve as a buffer between urban development and rural uses. NW 185<sup>th</sup> Ave., Abby (sic) Creek and its adjoining riparian zones and slopes and the powerline easement coupled with the Multnomah County boundary line all serve to clearly demarcate and buffer the proposed expansion area."



## **Wildlife Habitat and Water Quality**

From the "Forest Park Natural Resources Management Plan; Portland Parks and Recreation, Bureau of Planning, Adopted by City Council February 8, 1995. Development impacts on wildlife and habitats in Forest Park.

"Increased activity along boundaries, roads, and trails fragments populations of amphibians and reptiles using the park.

1. Boundaries increasingly act as barriers to movement of some species. An adult female northern red-legged frog was found road-killed at the junction of Skyline Boulevard and NW Springville Road. Traffic levels have especially increased along Skyline Boulevard and Germantown Road. Increased use of Germantown Road during evening hours increases the risk to nocturnal organisms crossing this road from adjacent portions of Forest Park. Mortality also occurs on trails in the Balch Creek system with heavy human use. Slow-moving diurnal salamanders such as rough-skinned newts are especially vulnerable to heavy foot-traffic. Regardless of type of boundary or thoroughfare, increased use increases the risk of crossing such boundaries to relatively slow-moving amphibians and reptiles.
2. Activity along the boundaries of, or thoroughfares through, Forest Park have a region of influence that extends some distance into the park from those boundaries and thoroughfares. Greater disturbance along such edges places amphibians and reptiles in those areas at greater risk." p. 60

"Upstream modifications impact the water quality of various drainages in the Forest Park system. Development in a significant portion of the upstream portion of the Balch Creek system resulted in high levels of siltation through that system, including the Audubon Preserve, during the 1993/04 wet season. Similarly, portions of the Lakota and smaller developments caused relatively high levels of siltation in the Doane and immediate adjacent creek systems." pp. 60 and 61.

### **"Roads**

Roadways present problems to many wildlife species for a variety of reasons. The movements of large mobile mammals may be inhibited or disrupted by roads. Noss (1987) reports that carnivores, particularly large ones, will avoid roads whenever possible. ... Predators following roadsides would be exposed to a higher risk of mortality from automobile collisions, and this effect extends for a distance of 1 km. into adjacent natural areas.

Smaller vertebrates like forest rodents and amphibians may find roads a nearly impassable barrier, while reptiles seeking to absorb heat from warm roads are killed in large numbers in some areas of the United States. Increased numbers of roads accompanying development and the subsequent increase in automobile traffic tend to further fragment habitat and disturb use by wildlife by interfering with foraging and dispersal of many species. This would be in addition to losses due to harmful edge effects created by road construction and clearing.

### **Residential Development**

Residential development poses some particular conflicts with forest wildlife. Domestic dogs and cats, prey on small vertebrates including shrews and woodpeckers. Additionally, dogs form packs which chase black-tailed deer (*Odocoileus hemionus*), elk (*Cervus elaphis*) and other large and medium-sized mammals." p. 64

### **"Roads**

Roads present a particular impediment to small terrestrial animals and some carnivores. Perhaps the prime example of this in Forest Park is NW Germantown Rd. The traffic volume, embankments and road cuts pose a barrier to small rodents, insectivores, amphibians and reptiles... There is little that can be done about this (short of closing the road) with the exception of providing culverts under the road at several places along its route." p. 69

From the ODFW Prioritization of Metro Natural Landscape Features:

Forest Park Connections (21) Natural Landscape Feature's Key Features, Values, and Attributes:

- Streams/habitats with ESA-listed salmonids
- OCS Conservation Opportunity Area (CR-09)
- Sensitive bird roosting/nesting sites
- Multiple big game species
- Big game winter range
- Floodplain habitats
- OSC Priority Habitats
- OCS Species of Concern
- Unique/rare habitats
- Significant wetland habitats
- Focus of conservation activities
- Wildlife corridors/connectivity – Coast Range to Forest Park, Multnomah Channel, and Sauvie Island

Rock Creek Headwaters (20) Natural Landscape Feature's Key Features, Values, and Attributes:

- Streams/habitats with ESA-listed salmonids; historic winter steelhead range
- Portion of OCS Conservation Opportunity Area (CR-09) – Forest Park
- OCS Species of Concern
- Multiple big game species
- Big game winter range
- Wildlife corridors/connectivity

From the Metro Natural Landscape Features Inventory, February 2007

### **Rock Creek Headwaters**

Rock Creek flows from the Tualatin Mountains in Forest Park to the Tualatin River. Watershed managers have identified protection of the upper watershed as a high priority for meeting water quality protection goals in the lower watershed. Opportunities to improve and protect habitat also exist through the protection of key tributaries and their associated wetlands. Because the creek and its tributaries pass through rapidly urbanizing neighborhoods within the cities of Hillsboro and Beaverton, protecting water quality is a priority. These headwaters also provide wildlife habitat and trail connectivity from the Tualatin Valley to the Tualatin Mountains that includes Forest Park.

### **Forest Park Connections**

Forest Park lies within the city of Portland and unincorporated Multnomah County. It is considered by many to be the “crown jewel” of the region’s open spaces network. At more than 5,000 acres of mostly second-growth forest, Forest Park contains an abundance of wildlife and its massive tree canopy and substantial undergrowth serves as a natural air purifier, water collector, and erosion controller. The Forest Park connection area provides protection to key watersheds like Balch, Miller, Ennis and Agency Creeks and secures the integrity of the “big game” corridor that links the park with habitat in the northern Coast Range. Connecting Forest Park to Rock Creek and the proposed Westside Trail will keep important wildlife corridors intact and provide trail connections between the region’s largest urban park and Washington County.



From the Multnomah County West Hills Rural Area Plan:

"Wildlife Habitat has been identified as a significant Goal 5 resource in the West Hills. All of the West Hills, excepting a small area consisting of the Bonny Slope subdivision along Laidlaw Road and adjacent areas, has been determined to be significant wildlife habitat, because it is all part of an ecosystem which supports a diverse wildlife population relatively undisturbed by the rural levels of development in the West Hills."

**From the Multnomah County West Hills Reconciliation Report Revised – May 1996:**

Page V-9,10,11 (Wildlife Habitat):

"Finally, the West Hills' relationship to Forest Park is critical to the West Hill's significance... Forest Park, in isolation, is not large enough to support self-sustaining populations of medium and large size mammals, such as elk, bobcats, mountain lions ... and black bears [footnote: the implication is not that Forest Park should be managed exclusively for bear and elk; rather, the point is that managing Forest Park and the adjacent wildlife are for bear and elk will ensure sufficient habitat for smaller mammal and bird species that reside in the Portland region.] for which hundreds of square miles of habitat would be required..

...

Thus it is the quantity of the West Hills Wildlife Habitat Area in relation to its quality and location that are critical to this inquiry. High quality habitat elsewhere in Multnomah County cannot substitute for even medium quality habitat in the West Hills. It is because medium quality habitat is limited, and threatened by conflicting uses at a particular location, that makes the West Hills a significant Goal 5 resource.

4. Quality ...

a. WILD ABOUT THE CITY (Marcy Houle, 1990)

This report discusses the concept of contiguous areas of natural habitat for wildlife and the results of the fragmentation of habitat into "islands." In the latter instance, numerous biological studies (see bibliography for Wild About the City) have documented the diminishment and loss of native plants and animals due to a lack of connection to a larger ecosystem. Continued development in the West Hills wildlife area could result in the fragmentation, and therefore the degradation of both the West Hills' and Forest Park's natural systems, the loss of species diversity, the permanent loss of natural populations to catastrophe such as fire, and the weakening of plant and animal populations due to the lack of genetic diversity available in larger areas.

b. A STUDY OF FOREST WILDLIFE HABITAT IN THE WEST HILLS (Esther Lev, Jerry Fugate, Lynn Sharp, 1992)

This report provides a more in depth study of existing wildlife within the West hills area. Research for the study included a series of six transects throughout the region, representing different types of land use... the transect with the most species diversity and numbers were found in the "control" transect within the boundaries of Forest Park. This indicates the high wildlife habitat values to be found within the park, and the importance of integrating Forest Park into a larger contiguous wildlife habitat area in order to protect this high value. The amount and diversity of wildlife within the rural West Hills area to the northwest of Forest Park is somewhat lower due to the impact of residential development, agriculture, quarry operations, and commercial forestry. However, each of the five transects outside of Forest Park showed significant numbers and diversity of wildlife, indicating that this area remains an important area for native plants and animals."

Page V-14. "In the case of the West Hills, maintaining black bear and elk habitat ensures that the habitat needs of a wide range of other species will be met"

**From Attachment 1 to Metro Resolution No. 07-3833, Approving the Natural Areas Acquisition Refinement Plan for the Forest Park Connections Target Area, September 6, 2007:**

"Northwest corridor and Rock Creek connection properties are also important for maintaining habitat connections to adjacent natural areas and ecosystems, headwaters, and for buffering unique habitats. Important local elk habitat shared with Rock Creek. Elk use creek corridors for movement, feed in open fields, and use forested areas for cover/rest."

**Excerpts from Exhibit A to Metro Resolution No. 07-3834, Approving the Natural Areas Acquisition Refinement Plan for the Rock Creek Headwaters and Greenway Target Area, September 6, 2007:**

"Background

...

The 2006 Natural Areas bond measure stated:

A major tributary of the Tualatin River, upper Rock Creek and its tributaries are under intense development pressure as urban growth expands throughout the watershed. Watershed managers have identified protection of the upper watershed as a high priority for meeting water quality protection goals in the lower watershed. Opportunities to improve and protect habitat also exist through the protection of key tributaries and their associated wetlands. In addition, the protection of key undeveloped sites in the lower reaches of Rock Creek, particularly in Hillsboro, will buffer growth, protect water quality and provide nature in neighborhoods for local residents.

A biological assessment for this target area indicates that oak woodlands and oak savanna habitat support varied wildlife, and expanding the protected natural areas would increase habitat opportunities for vulnerable species such as red-legged frogs, Western bluebirds and northwestern pond turtles. In addition, threatened species such as steelhead, cutthroat trout and coho salmon are present in Rock, Abbey, Holcomb, Bannister and Bronson creeks, as well as in an Abbey Creek tributary."

...

"Target Area Description

Rock Creek flows from the Tualatin Mountains to the Tualatin River. The headwaters hold key areas of undeveloped land which provides linkages for wildlife. These areas also contribute to water quality. Because the creek and its tributaries pass through rapidly urbanizing neighborhoods within the city of Hillsboro, protecting water quality is a priority."...

"Findings

- Rock Creek is a major tributary of the Tualatin River. The headwaters of Rock Creek and its tributaries have been targeted for acquisition due to intense development pressure as urban growth expands throughout the watershed. Watershed managers have identified protection of the headwater areas as a high priority for meeting water quality protection goals in the lower watershed and also to improve and protect wildlife habitat.
- The headwaters of Rock Creek originate on the west side of the Tualatin Mountains southwest of NW Skyline Boulevard and Forest Park. Numerous tributary streams flow through woodlands and agricultural lands before crossing into the urbanized area near West Union and Springville Roads.
- The watershed for Rock Creek includes in excess of 18,000 acres and numerous tributary streams. Major tributary streams include Abbey, Bronson, Holcomb and Beaverton Creeks.



- Established science continues to show the key importance of intact headwaters for water quality and quantity protection, habitat and maintenance of overall watershed health.
- The science report notes that the area's oak woodlands and oak savanna habitat support varied wildlife, and expanding the protected natural areas would increase habitat opportunities for vulnerable species such as red-legged frogs, Western bluebirds and northwestern pond turtles. In addition, threatened species such as steelhead, cutthroat trout and coho salmon are present in Rock, Abbey, Holcomb and Bannister and Bronson creeks.

...

- Stakeholders identified protection of east/west wildlife corridors as just as important as north/south corridors.
- Some stakeholders would like to see Metro focus on purchase of open spaces closer to the Urban Growth Boundary to help provide a natural edge between urban and rural areas.

#### Goals

- Protect the upper watershed to meet water quality protection goals in the lower watershed.
- Protect key undeveloped sites in the lower reaches of Rock Creek to buffer growth, protect water quality and provide nature in neighborhoods.
- Protect habitat along key tributaries and associated wetlands."

#### **From Attachment 1 to Resolution No. 07-3834:**

#### Summary of Comments from Stakeholder Interviews For Rock Creek Headwaters and Greenway Target Area

#### "Key Themes Discussed

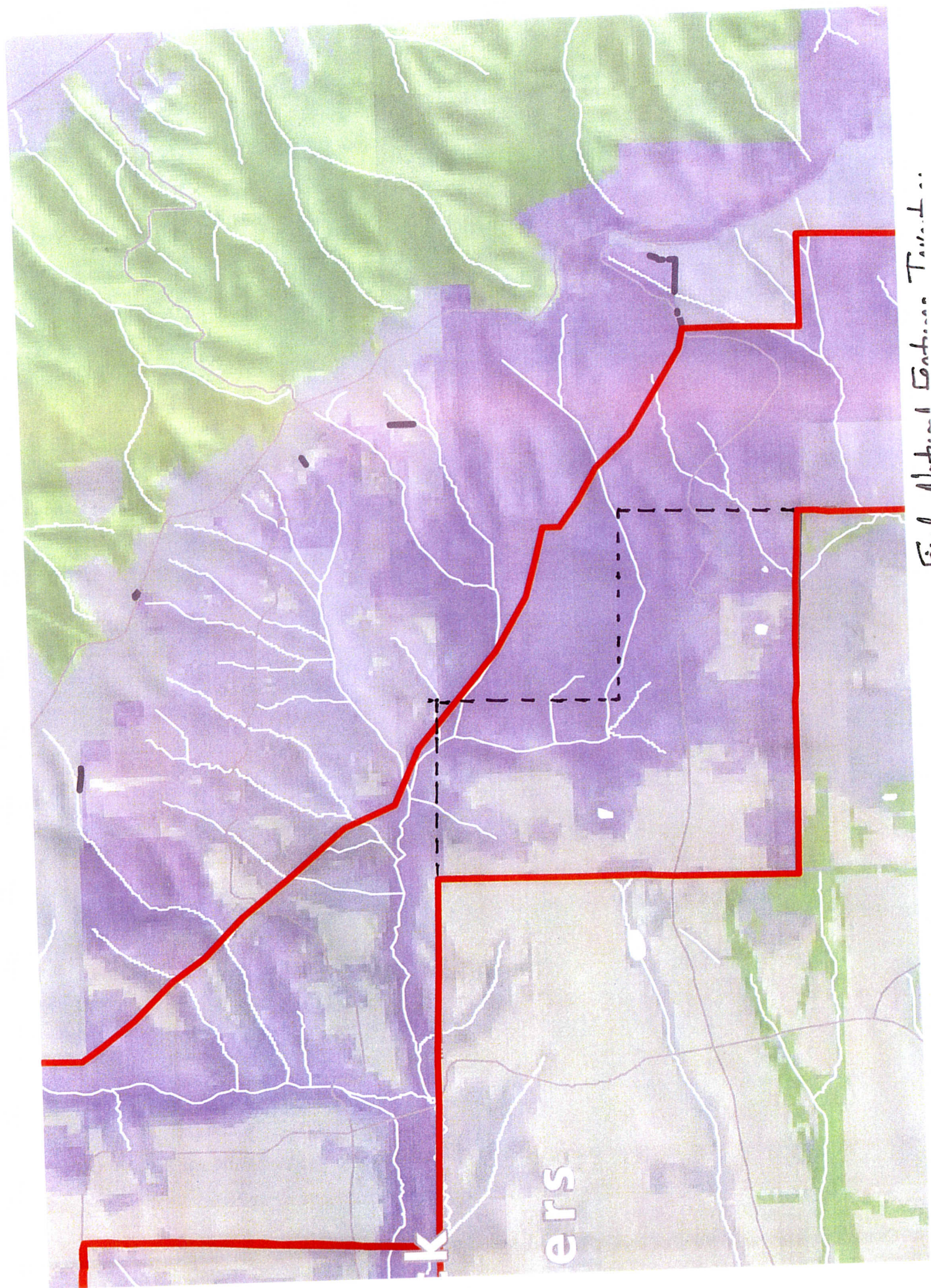
##### Wildlife Habitat

- Importance of wildlife corridors – open areas down-slope of Forest Park into the Tualatin Valley are very important for wildlife (sunnier, open fields, more available food and water)
- East/west wildlife corridors (Forest Park to Tualatin Valley) are just as important as north/south corridors (Forest Park to Coast Range)
- Unique clusters of white oak should be mapped – disappearing habitat in the region

##### Land Use / Urban/Rural Form

- Important to connect Forest Park to urban areas with "ribbons of green" – important for wildlife corridors, water quality and livability
- Build on wetland/creek confluence near PCC/Rock Creek – opportunity for a "natural edge" between urban and rural areas; Hillsboro and Washington County planners support a larger "regional" scale park farther up in the watershed, but accessible to the urban population
- Focus on linkage of Rock Creek Headwaters, Forest Park and Westside Trail regional target areas
- Consider mutual benefits of protecting open space and providing buffers for small farm operations in proximity to urban areas
- Metro program is focused on natural area functions – could serve a complimentary role to low impact agricultural practices, particularly those that supply local food markets







TNC Willamette Valley Synthesis Map

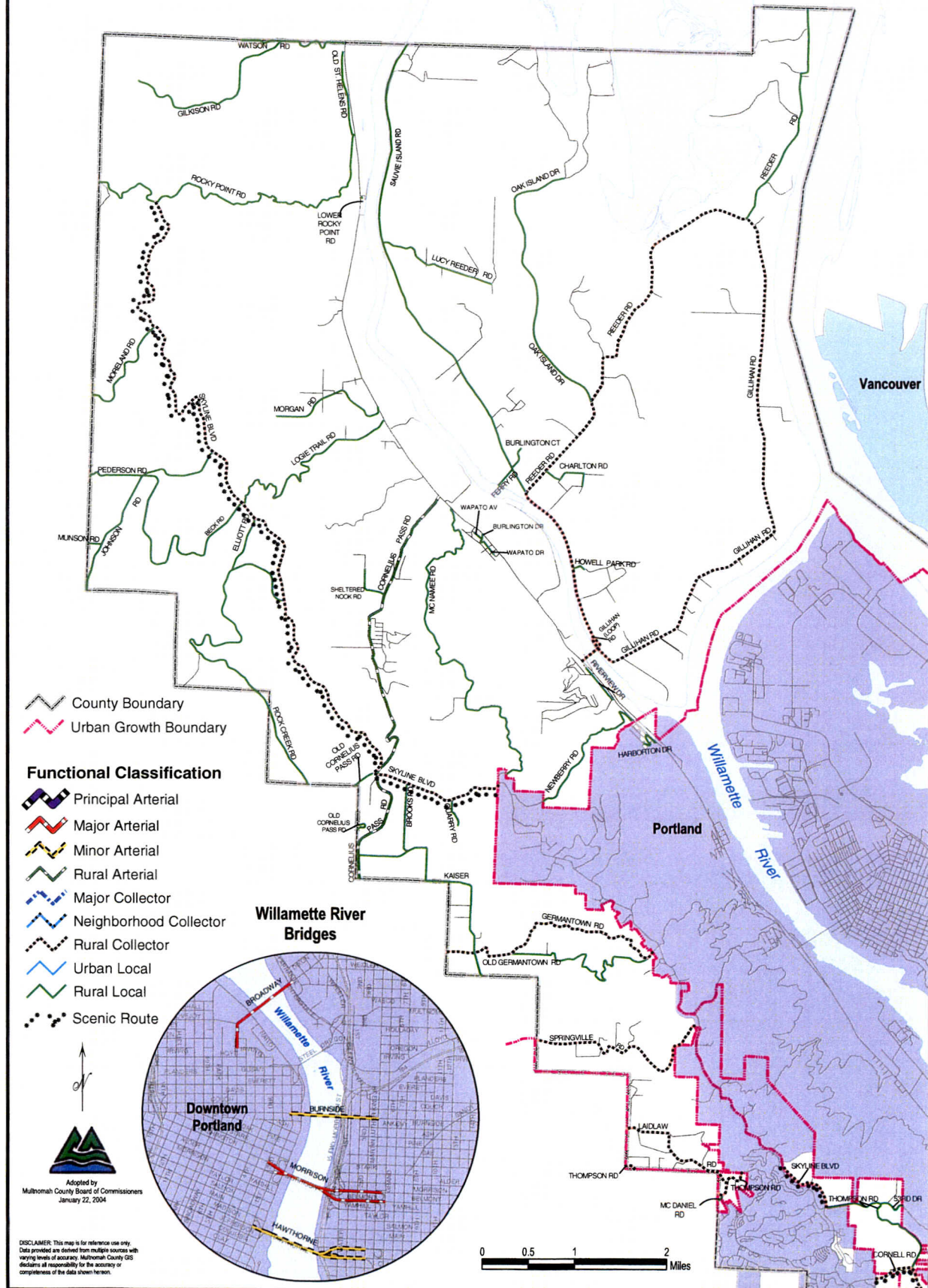
Caroll Chesarek  
13300 NW Germantown Rd  
Portland, OR 97231-2765





Skyline Blvd distances: 4.5 miles LTK to Germantown 1.1 miles Germantown to Thompson  
 3.8 miles Thompson to Cornell  
 1.0 mile

# Multnomah County Functional Classification of Trafficways

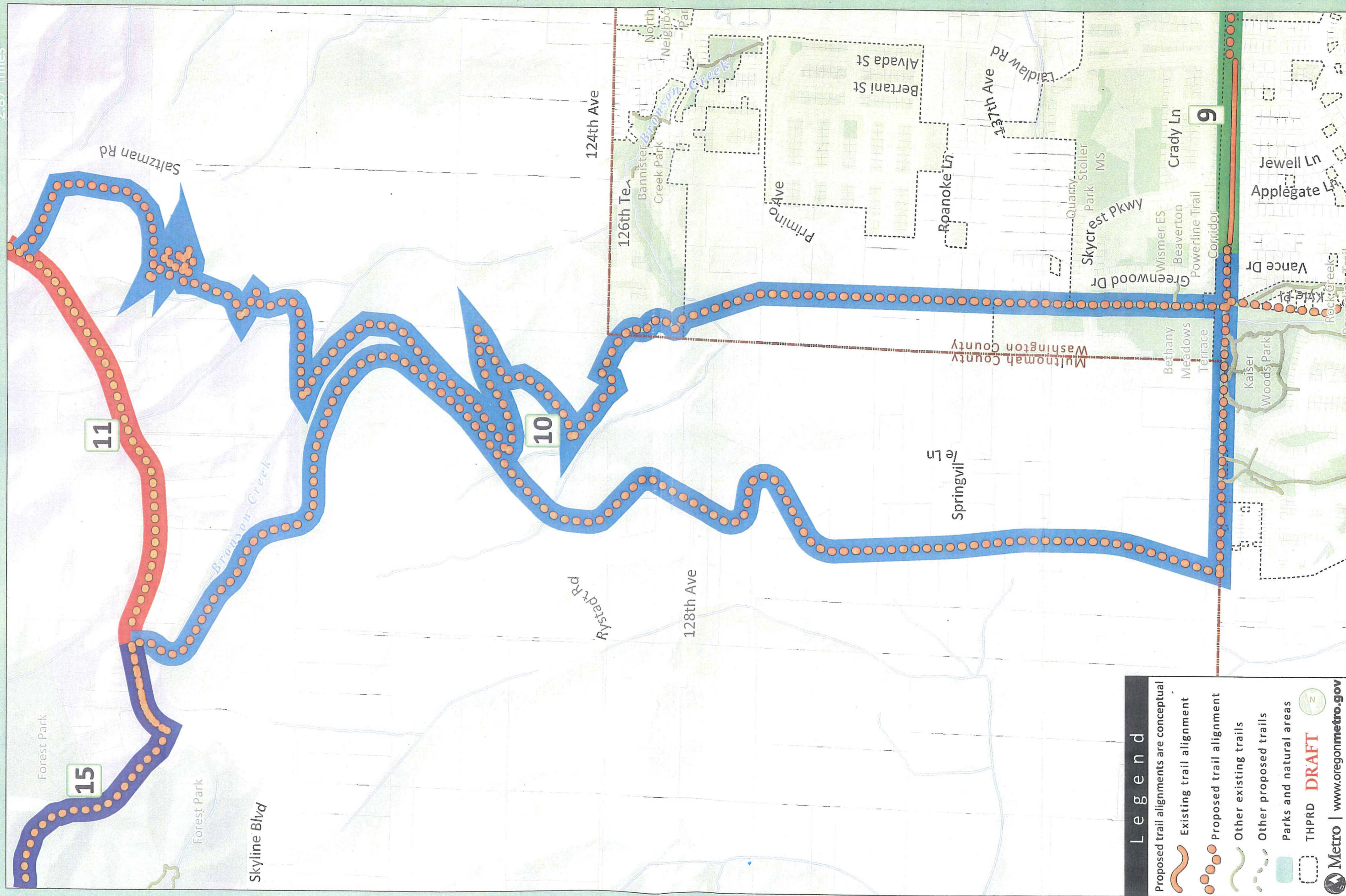




# Master Planning the Westside Trail

## Segment 10

2.87 miles



### Legend

- Proposed trail alignments are conceptual
- Existing trail alignment
- Proposed trail alignment
- Other existing trails
- Other proposed trails
- Parks and natural areas
- THPRD **DRAFT**

Metro | [www.oregonmetro.gov](http://www.oregonmetro.gov)

[A:\woodbury\proj\09167 WestsideTrail

Project Date: December 9, 2009





Fifty Elk on Malinowski Farm, Springville Lane; Nov. 2002



# **Oregon White Oak Survey**

## **Reserves Area 9B, the Lower Springville "L"**

**May 4, 2010**

### **Scope and Intent**

We surveyed the Oregon white oak trees (*Quercus garryana*) in Urban and Rural Reserves study Area 9B (also known as the Lower Springville "L") on April 26, 2010. This area is located in western Multnomah County, bordered on two sides by the Washington County line. NW Springville Road runs through the lower part of the area.

Oregon white oaks are present throughout this area, in both oak savanna and in oak woodland habitats.

Because oak woodlands and oak savannas are Strategy Habitats in the Oregon Conservation Strategy, we wanted to try to determine how many mature oak trees were present in Area 9B. Our survey was limited to trees that could be seen from public roads, and trees that were present or could be seen from about 10 properties that we had permission to enter. We also looked for species associated with Oregon white oaks.

### ***Oregon Conservation Strategy***

In 2006, Oregon Department of Fish and Wildlife published the *Oregon Conservation Strategy*. This document provides a comprehensive state strategy for conserving fish and wildlife. Previously, many plans had been used that focused on a particular species, area or natural resource. The objective of the *Oregon Conservation Strategy* is to ensure that Oregon's natural treasures are passed on to future generations. "The *Oregon Conservation Strategy* emphasizes proactively conserving declining species and habitats to reduce the possibility of future federal or state listings." (3)

According to the *Oregon Conservation Strategy*, "The goals of the *Oregon Conservation Strategy* are to maintain healthy fish and wildlife populations by maintaining and restoring functioning habitats, preventing declines of at-risk species and reversing declines in these resources where possible." (3)



## Why is the Oregon white oak tree important?

The Oregon white oak (*Quercus garryana*) is important for two reasons:

1. Less than 1% of historic Willamette Valley native oak habitats still exists. (1)
  - a) Oregon Department of Fish and Wildlife (ODFW) has identified oak woodlands and oak savannas as “**Strategy Habitats**” for the Willamette Valley (3)
  - b) Metro has identified Oregon white oak savannas and white oak woodlands as “**Habitats of Concern**” (1)
2. Three birds and one squirrel are dependent on the Oregon white oak for habitat. These species are listed as **Vulnerable Sensitive Species** by the Oregon Department of Fish and Wildlife. Species on this list face one or more threats to their populations and/or habitats. (2)
  - a) These Vulnerable Sensitive Species are:

**Acorn Woodpecker** (*Melanerpes formicivorus*)

**White-breasted (Slender-billed) Nuthatch** (*Sitta carolinensis aculeata*)

**Western Bluebird** (*Sialia mexicana*)

**Western Gray Squirrel** (*Sciurus griseus*)

- b) ODFW has identified **White-breasted Nuthatch** and **Western Bluebirds** as “Strategy Species” in the Willamette Valley. Conservation actions for both species include maintaining large oaks > 22” dbh (diameter breast height). For Western Bluebirds, conservation actions also include “maintain or restore grassland and oak savanna habitat.” (3)

According to the Oregon Conservation Strategy, the special needs of Western Bluebirds are: “grasslands and oak savannas for foraging, cavities, especially in savanna oaks for nesting, scattered trees or shrubs as hunting perches.” (3)

**Western Gray Squirrels** are also a “Strategy Species” in the Willamette Valley, and the *Oregon Conservation Strategy* says their special needs are “oak woodland and savanna; mixed oak-pine-fir woodlands; older trees with larger limbs; continuous canopy for movements.” (3)



## Effects of Urbanization

**Urbanization** poses particular problems to oak woodlands and oak savannas, according to the *Oregon Conservation Strategy*. "Conversion to more urban uses increases the amount of impervious surfaces, which alter surface and water flow, degrade water quality, and reduce vegetation cover and diversity. The changes made to the landscapes tend to be permanent and restoration to a natural state is difficult if not impossible." (3)

According to the *Oregon Conservation Strategy*, habitat conversion (urban and agricultural) is the primary reason that oak woodlands and oak savannas have declined since the 1850s. "Habitat conversion results in a matrix of unsuitable areas.

For example, most of the grassland and oak woodland habitat in the Willamette Valley has been converted to agricultural, urban and rural residential uses. The remaining grassland and oak woodland patches are small, isolated and surrounded by unsuitable habitat for many species." (3) This fragmentation cannot support the species in a way conducive to survival.

According to the *Oregon Conservation Strategy*, Western Bluebirds are a grassland bird that eats insects, and they "need open, grassy areas to feed and raise their young." Urbanization is implicated in the decline of Western Bluebirds. (3) Grasslands and oak savannas needed for foraging are typically eliminated by development as land is developed.

Habitat loss and fragmentation, and residential and urban development are listed as limiting factors for Western Gray Squirrels. (3)

## Field Survey

### DATA COLLECTION

Gary Price, retired investigator for the Washington County Sheriff's Office, performed the field survey. Mr Price previously surveyed oak trees across all of the Helvetia area, so he had extensive experience. The timing of the survey proved fortunate – oak trees are very late to leaf out in the Spring, and their bare branches made identification easier.



In addition to counting mature trees, the following information was also noted:

1. Type of Patch
  - a) Closed canopy. Tree tops mostly touch, little light reaches the ground. Considered oak woodland.
  - b) Scattered oaks. Moderate amounts of light reaching the ground, maybe 50% tree canopy coverage.
  - c) Oak savanna. Open, widely spaced, about 25% or less of tree canopy coverage.
2. Type of Trees in each Patch (all oak or mixed)
3. Diameter (measured 2' off the ground – oak trees often have multiple trunks that divide above this height, making it difficult to measure diameter accurately at a higher point).

## RESULTS

The total number of Oregon white oak trees identified during the field survey was 1210. About 200 of these trees were located just outside of Area 9B. Because we only counted trees that were visible from the road or from properties that we had access to, it is probable that our count does not include all of the oaks in Area 9B.

**We counted 1010 mature Oregon white oak trees in Area 9B**, with diameters of up to 60" (as explained above, diameters in this report were measured 2' above ground level). 940 of these were located south of Springville Road, mostly in two very large closed canopy groups near the county line, but there are also many very large, widely scattered oaks.

The largest group includes 730 oak trees with diameters up to 60", about 80 of which are on undeveloped land in Washington County, just south of Area 9B. This group is mostly oak, with few other species mixed in.

310 of the oak trees in Area 9B are located on Malinowski Farms. Another 70 oaks are on Malinowski Farms land in adjacent Washington County. Most of these 380 oak trees (total) on the 60 acres owned by Malinowski Farms are in 3 main groups, but there are also many large, widely scattered trees. Two of these groups are mixed with conifers and other hardwoods, but one group is mostly oak. Some of the oaks on Malinowski farms have diameters of up to 54," but most ranged from 18" to 24"

One large cluster of oaks was located on the northern edge of Area 9B, with 65 oak trees up to 28" in diameter. About half of these trees were within Area 9B, with 30 located just north of Area 9B.



Total Oregon White Oak trees	1210
Total oak trees in Area 9B	1010
Total oak trees just outside Area 9B	200

Total oak trees in Area 9B south of Springville Road	940
--	-----

Oak trees on Malinowski Farms	380
Oak trees on Malinowski Farms in Area 9B	310

Oak trees in adjacent Wash. Co. just south of 9B (including Mal. Farms)	170
Oak trees in adjacent Mult. Co. just north of 9B	30

### Other Species

We confirmed that White Breasted Nuthatches are present in the area. One resident reported seeing of Western Gray Squirrels, but we were unable to confirm that they were present. Nearby residents have reported seeing Western Bluebirds, but we did not see any during the survey.

Malinowski Farms and an adjacent property at 13512 NW Springville Lane also include wet meadows full of wild, native camas, probably *Camassia quamash*. Staff of West Multnomah Soil and Water Conservation District have told the Malinowskis that these are the only wild native camas they know of in Western Multnomah County. While this species is not closely associated with oak trees, in this instance they occur in wet areas near the oak trees, not far from the county line on the southern edge of Area 9B.

### CONCLUSION

Area 9B, the Lower Springville "L," contains many large old Oregon white oak trees in healthy oak woodland and oak savanna habitats. As a Habitat of Concern identified by Metro and as a Strategy Habitat identified by the Oregon Department of Fish and Wildlife, the Oregon white oak savanna and woodlands in this area are important habitats that should be preserved in their rural state. Urbanization would damage these habitats, and limit their utility to associated species like Western Bluebirds.

The Natural Landscape Features Inventory does not appear to include open fields near some of these oaks, and probably does not reflect all of the oak savanna habitat in the area.

A Rural Reserve designation is appropriate and justified for Area 9B based on the presence of these important habitats and associated species (Rural Reserve Factor 3(c)).



## SURVEY METHODOLOGY

Mr. Price surveyed properties with street addresses between 12931 and 13539 NW Springville Road on the north side of NW Springville Road, and between Malinowski Farms and 13640 NW Springville Lane in the area south of NW Springville Road. All of the properties that we visited are within Area 9B, but we counted oak trees that were visible to us on other properties, including those in areas adjacent to Area 9B. Mr. Price was escorted by Carol Chesarek, and Roxanne Jehan recorded the data.

The survey was performed on Monday, April 26, 2010.

Mr. Price had previously surveyed a very large area north of Highway 26 in Washington County, so he was experienced in identifying *Quercus garryana* and determining tree size.

In order to perform an accurate count, Mr. Price utilized a mechanical "clicker." His total count is conservative in nature because he was not able to enter many properties. He recorded the address for each location of oaks; where he could not determine the actual street address, the closest address was noted.

## Works Cited

1. Hennings, Lori. 2006. "State of the Watersheds Monitoring Report." Metro Regional Government. Portland, Oregon. December, 2006. P. 27
2. Oregon Department of Fish and Wildlife, "Sensitive Species List". 2008. [HYPERLINK [http://www.dfw.state.or.us/wildlife/diversity/species/docs/SSL\\_by\\_taxon.pdf](http://www.dfw.state.or.us/wildlife/diversity/species/docs/SSL_by_taxon.pdf)] P.1, 13
3. Oregon Department of Fish and Wildlife. 2006. *Oregon Conservation Strategy*. Oregon Department of Fish and Wildlife, Salem, Oregon. [HYPERLINK <http://www.dfw.state.or.us/conservationstrategy/>]

## ACKNOWLEDGEMENTS

*Edited and compiled by Carol Chesarek.*

*Adapted from the Save Helvetia report: **Oregon White Oak Survey (Quercus garryana) Survey Area North of Highway 26, August 21, 2009**, edited by Cherry Amabisca*

### *Contributors*

Gary Price, Field Survey

Roxanne Jehan, recording Field Survey



# Northern Red-legged Frog Survey

## Reserves Area 9B, the Lower Springville "L"

May 4, 2010

### Scope and Intent

We surveyed Northern red-legged frogs (*Rana aurora aurora*) in the proposed Rural Reserve known as the Lower Springville "L" (Urban and Rural Reserve study area 9B) on April 26, 2010. This area is located in western Multnomah County, bordered on the west and south sides by the Washington County line.

NW Springville Road runs through the lower part of the area. Most of the area located north of NW Springville Road is in the Abbey Creek watershed, and drains to the north and east. Most of the area south of NW Springville Road is in a different sub-watershed of Rock Creek, and drains to the west and south towards a riparian corridor along the county line and then through Bethany.

Because Northern red-legged frogs are a Strategy Species in the *Oregon Conservation Strategy*, we wanted to determine whether they were present in the "L." Our survey was limited to 5 properties in the "L" that we had permission to enter. These properties each included at least one pond or stream.

### *Oregon Conservation Strategy*

In 2006, Oregon Department of Fish and Wildlife (ODFW) published the *Oregon Conservation Strategy*. This document provides a comprehensive state strategy for conserving fish and wildlife. Previously, many plans had been used that focused on a particular species, area or natural resource. The objective of the *Oregon Conservation Strategy* is to ensure that Oregon's natural treasures are passed on to future generations. "The *Oregon Conservation Strategy* emphasizes proactively conserving declining species and habitats to reduce the possibility of future federal or state listings." (3)

According to the *Oregon Conservation Strategy*, "The goals of the *Oregon Conservation Strategy* are to maintain healthy fish and wildlife populations by maintaining and restoring functioning habitats, preventing declines of at-risk species and reversing declines in these resources where possible." (3)

### **Conservation Status: Why Northern red-legged frogs are important**



1. Northern red-legged frogs are a **federally listed Species of Concern** in Multnomah County. (4)

2. Northern red-legged frogs (*Rana aurora aurora*) in the Willamette Valley are listed as a **Vulnerable Sensitive Species** by the Oregon Department of Fish and Wildlife. Species on this list face one or more threats to their populations and/or habitats. (2)

3) ODFW's *Oregon Conservation Strategy* identifies Northern red-legged frogs as a "**Strategy Species**" in the Willamette Valley. Conservation actions listed for these frogs include "Maintain wetland habitat with emergent plants. Maintain adjacent forested habitats." (3)

According to the Oregon Conservation Strategy, "Red-legged frogs lay their eggs in wetlands with clean water beginning in late winter. They spend a lot of time on land in cool damp forests." These frogs are highly terrestrial, and they need adjacent moist forest areas for foraging and over-wintering habitat. (3)

The July 13, 2002 Working Draft of Metro's "Riparian Corridor and Wildlife Habitat Inventories," page 31, says:

"Northern Red-legged Frogs inhabit marshes, ponds, and streams with little or no flow, and use seasonal waters if wet until late May or early June. Stems below the water line are needed for egg attachment. These frogs often use dense hardwood stands with heavy ground cover. Possible causes cited for decline include displacement by introduced bullfrogs and pesticide and herbicide runoff (ODFW 1996). Habitat specialist: water, herbaceous and riparian wetlands, westside lowlands coniferous-hardwood forests."

Atlas of Oregon Wildlife says that Red legged frogs occur up to 300 yards from standing water during non-breeding season. It also says: "This species is declining seriously in the Willamette Valley. Several recent surveys have failed to detect this species at sites in the valley where it was once common to abundant." (1)

## Urbanization

According to a new Metro document "Wildlife corridors and permeability, A literature review, April 2010: "Reptiles and amphibians are particularly vulnerable to road effects, and some species may experience high mortality when migrating to or from breeding areas." Two of the ponds where Northern red-legged frogs were located are within a few yards of NW Springville Road.



## Field Survey

### DATA COLLECTION

Char Corkran, a local wildlife biologist and co-author of Amphibians of Oregon, Washington and British Columbia: A Field Identification Guide, 2006, performed the survey. Carol Chesarek escorted Ms. Corkran to five properties with ponds, streams, and wetlands in the Lower Springville Road "L" on April 28, 2010.

Ms Corkran walked each property and carefully searched for frogs and salamanders. Tadpoles were captured with a small net for identification and then released. Ms. Corkran found that all of the properties had red-legged frog habitat, suitable for different times of year and different life stages. It was a cold day (the high temperature reported in Portland for the day was 54 degrees F), and given the difficulty of locating amphibians it is likely that there are more frogs than we were able to locate.

### RESULTS

Four adult Northern red-legged frogs were identified in a pond on property located at 13303 NW Springville Road.

Northern red-legged frog tadpoles were netted and identified in each of 2 ponds on Malinowski Farms, located at 13450 NW Springville Lane. Malinowski Farms is roughly 60 acres, and includes land in two different watersheds. Northern red-legged frog tadpoles were found in ponds in both the Abbey Creek watershed in the northern portion of the "L", and in the other sub-watershed in the southern portion of the "L." Both of these sub-watersheds flow into Rock Creek. Malinowski Farms is a certified organic farm, so pesticide and herbicide runoff are not a concern on this farm.

Tadpole stage Northern Pacific Treefrogs (*Pseudacris regilla*) and Long-toed Salamanders (*Ambystoma macrodactylum*) were also found in the larger Malinowski Farms pond. Long-toed Salamander tadpoles were also found in a pond at 13512 NW Springville Lane. Adult Roughskin Newts were found on several properties in the "L."

Ms. Corkran will report her findings to the appropriate state authorities.

A property owner at 13560 NW Springville Road reported that Audubon Society of Portland employees had previously identified Northern red-legged frogs using a small pond on their property.

Ms Corkran noted that the area contains extensive healthy Oregon white oak savanna and oak woodland habitats. We also confirmed that White Breasted Nuthatches (a species associated with Oregon white oaks) are using the area.