



Greater Yamhill Watershed Council



OUR LOCAL WATERSHEDS

YAMHILL RIVER & CHEHALEM CREEK

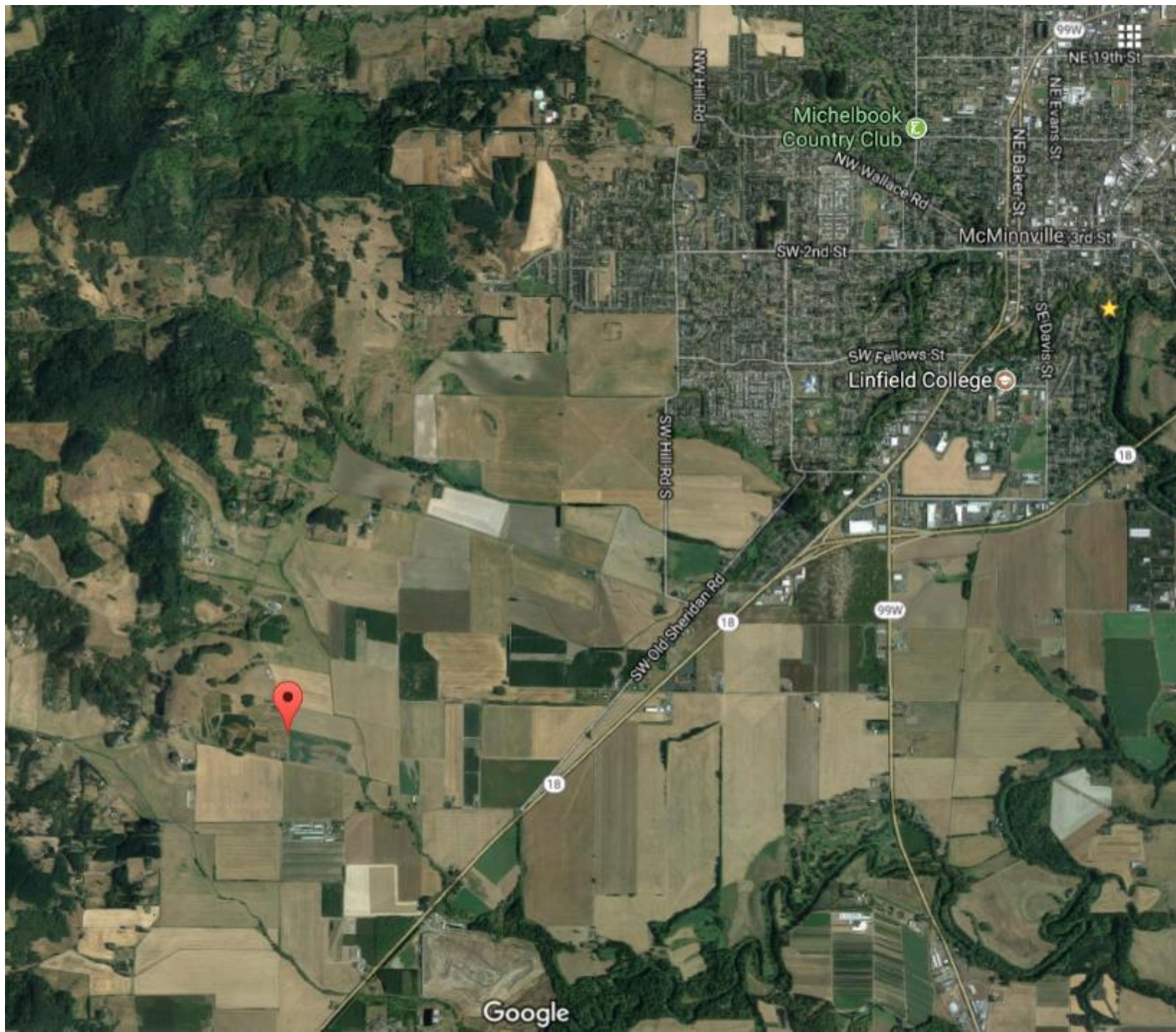
GREATER YAMHILL WATERSHED COUNCIL

LUKE WESTPHAL, EXECUTIVE DIRECTOR

APRIL 2019

OVERVIEW

- WATERSHED COUNCILS?
- LOCAL HABITATS, FISH, WILDLIFE
- HOW YOU CAN GET INVOLVED!









CITY OF *Salem*
AT YOUR SERVICE

Public Works Department



CITY OF *Salem*
AT YOUR SERVICE
Public Works Department





CITY OF *Salem*
AT YOUR SERVICE
Public Works Department

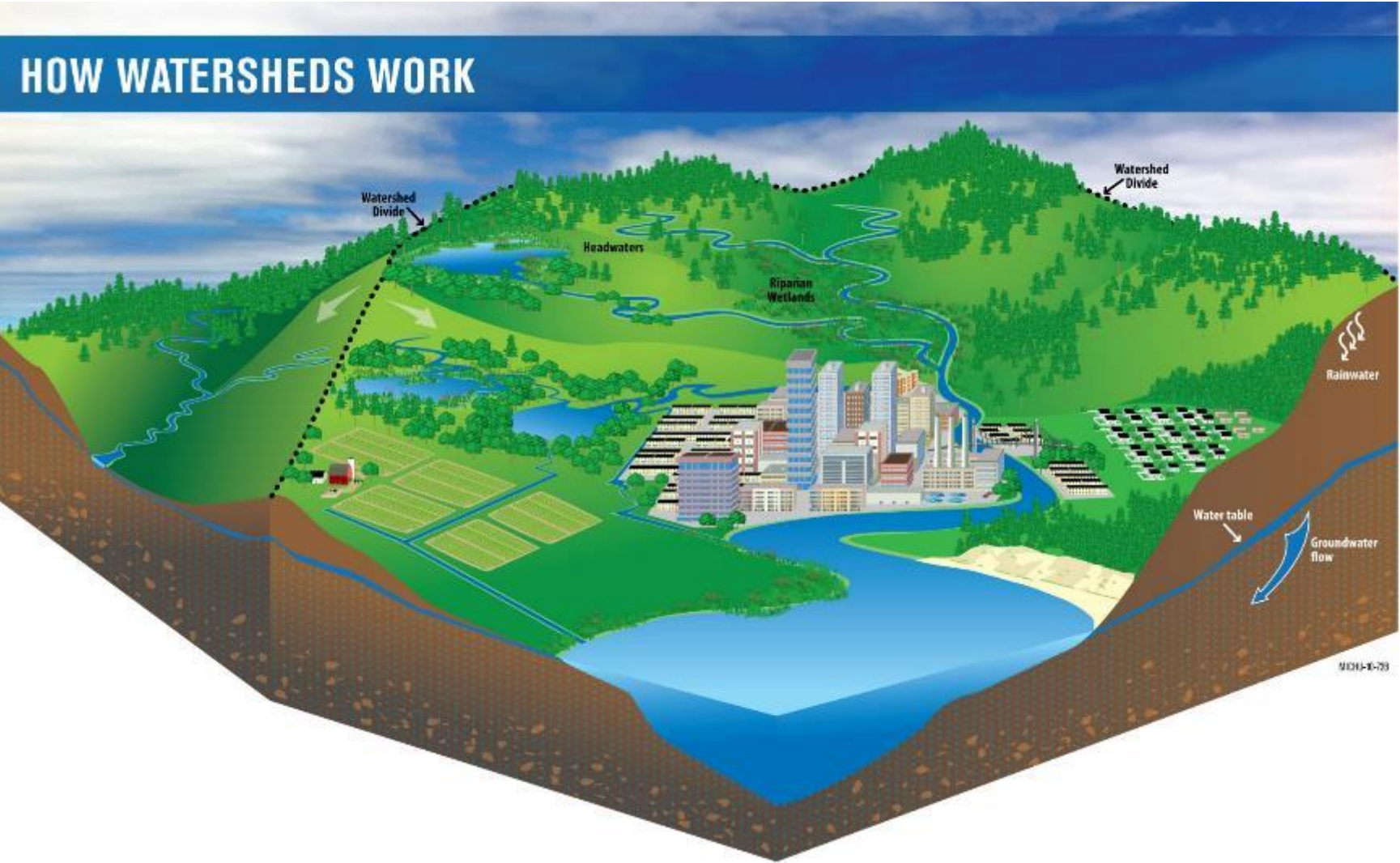


WHAT IS A WATERSHED?

LAND THAT DRAINS TO A COMMON WATER BODY



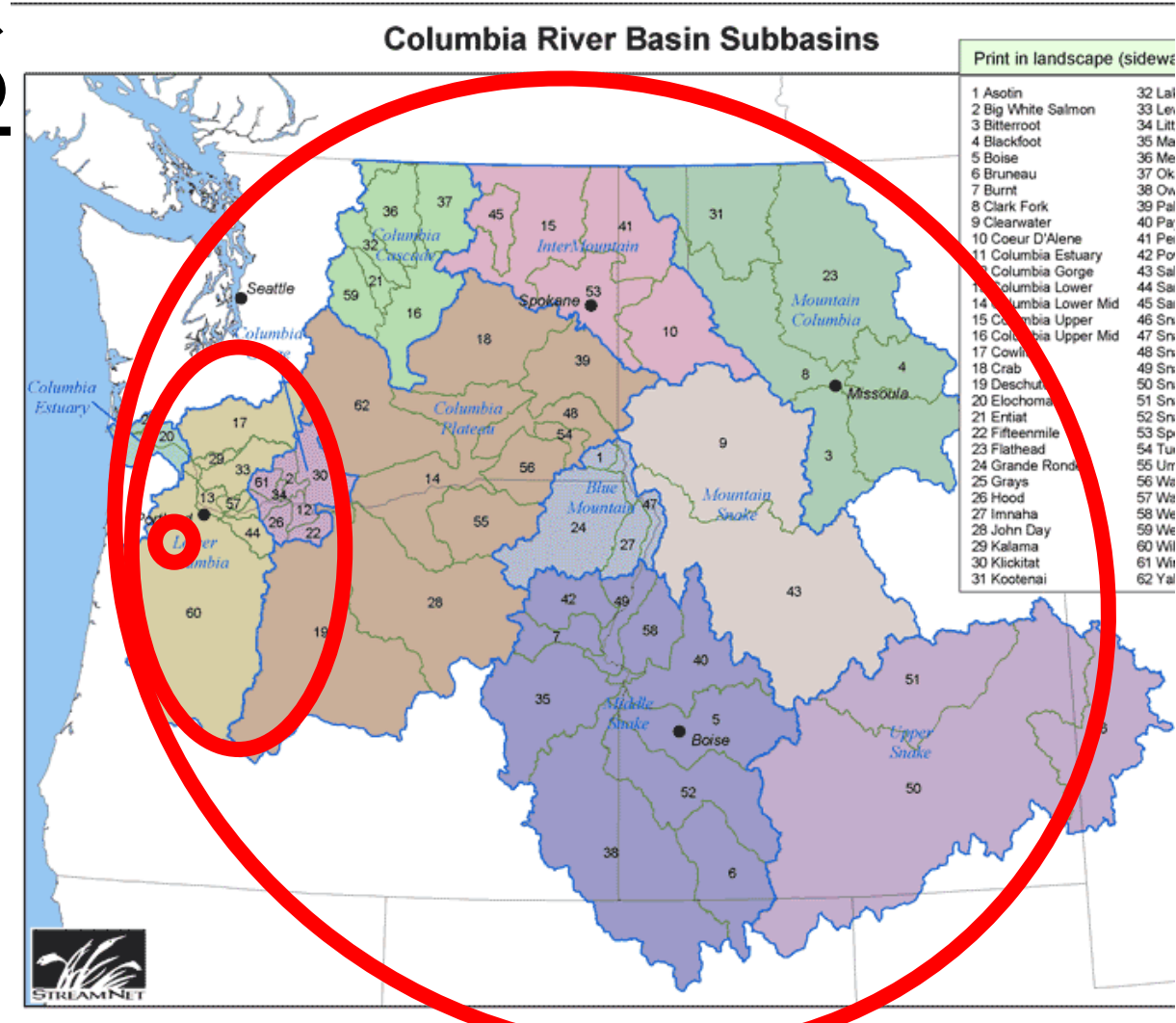
AND EVERYTHING
ACROSS THAT LAND
PEOPLE
PLANTS
ANIMALS
AIR
WATER
CITIES
FARMS
INDUSTRIES
AND MORE!



WATERSHEDS

COME IN ALL SIZES

NEWBERG HIGH
HESS CREEK
CHEHALEM CREEK
WILLAMETTE RIVER
COLUMBIA RIVER
PACIFIC OCEAN



WATERSHEDS

COME IN ALL SIZES

NEWBERG HIGH

HESS CREEK

CHEHALEM CREEK

WILLAMETTE RIVER

COLUMBIA RIVER

PACIFIC OCEAN



WHAT ARE WATERSHED COUNCILS?

GRASS-ROOTS ORGANIZATIONS IN A WATERSHED THAT DO 2 THINGS:

- 1) Identify Local Natural Resource Concerns
- 2) Work toward voluntary, community-based solutions



Oregon Watershed Councils

North Coast Watershed Association

- *a. Ecola Creek WC
- *b. Nicolai-Wickiup WC
- *c. Skipanon WC
- *d. Youngs Bay WC

- e. Columbia Slough WC
- f. Greater Oregon City WC
- g. Johnson Creek WC
- *h. Lake Oswego WC
- *i. N. Clackamas Urban WC
- *j. Tryon Creek WC

Salem Keizer Area Watershed Councils

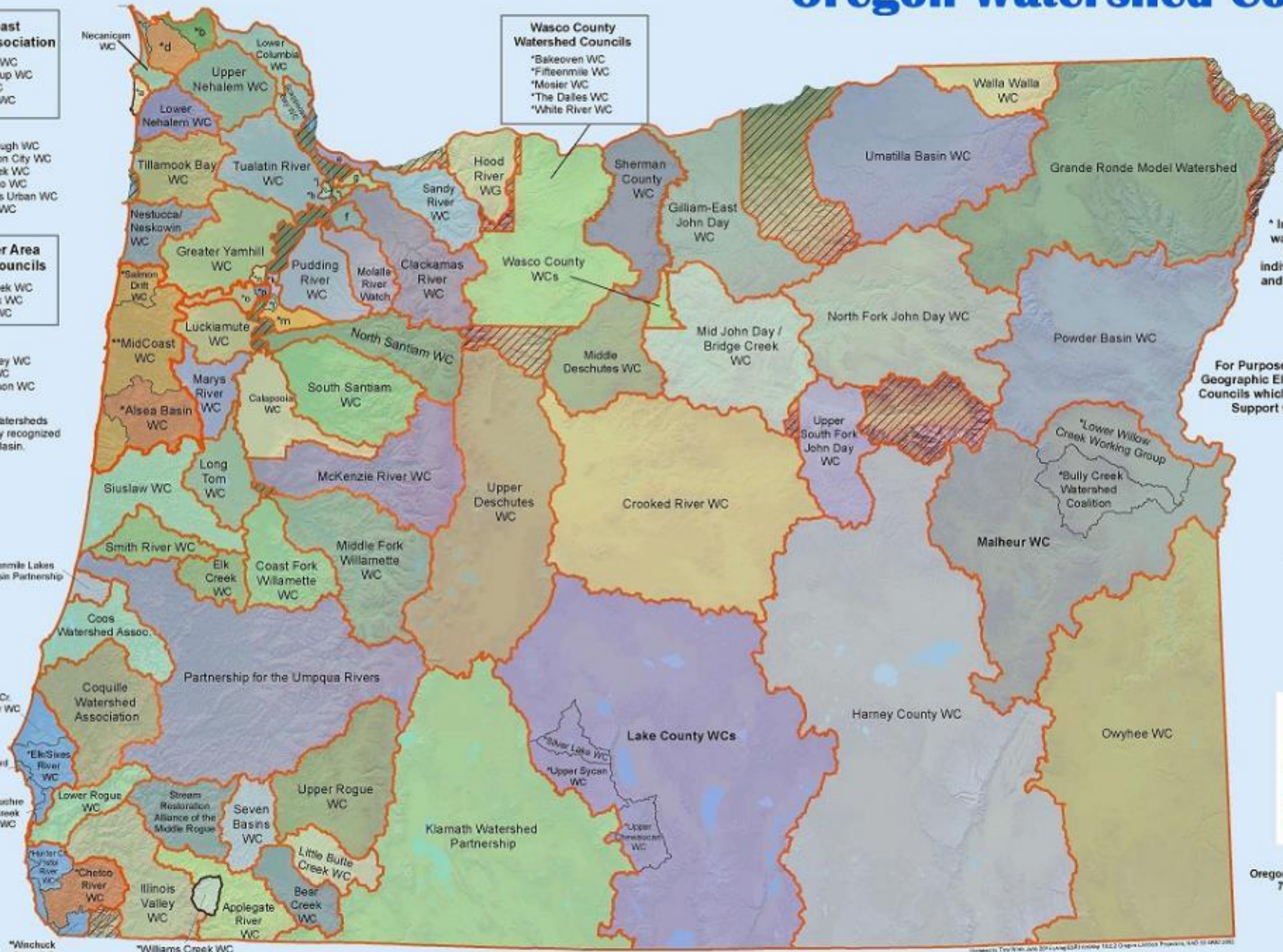
- *k. Claggett Creek WC
- *l. Pringle Creek WC
- *m. Mill Creek WC

- *n. Spring Valley WC
- *o. Rickreall WC
- *p. Glenn-Gibson WC

**The MidCoast Watersheds Council is also locally recognized in the Alesia Basin.

Wasco County Watershed Councils

- *Bakeoven WC
- *Fifteenmile WC
- *Mosier WC
- *The Dalles WC
- *White River WC



* Indicates locally recognized watershed councils that have never received their own individual Council Support Grant and are not eligible for a Council Capacity Grant.

For Purposes of OAR 695-040-0030(2)(a) Geographic Eligibility Criteria: Boundaries of Councils which received a Watershed Council Support Grant Before July 1, 2013.



Area with no watershed council



Oregon Watershed Enhancement Board
 775 Summer St. NE Suite 360
 Salem, OR 97301-1290
www.oregon.gov/OWEB

South Coast Watershed Council

The South Coast Watershed Council is also locally recognized for the Chetco Basin.

Copyright: Tom Smith and Don Long (2011) Oregon WUEB 1822 Oregon Watershed Councils, 140 10 1840 2011

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Salem Keizer Area Watershed Councils

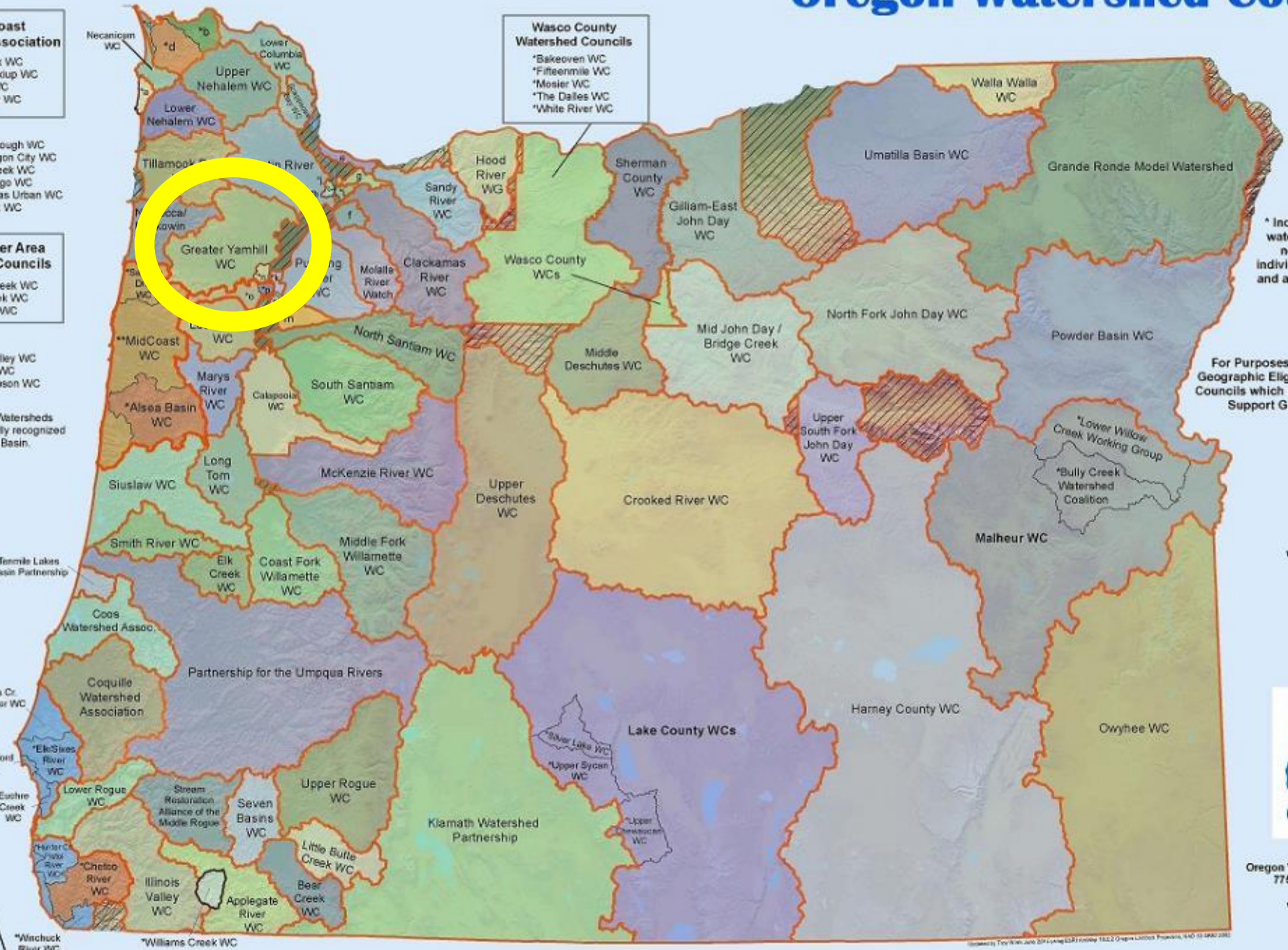
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STATE FUNDING PROGRAMS

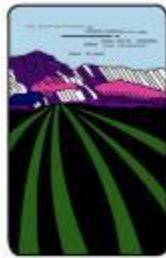
- 15% OF OREGON LOTTERY NET REVENUE GOES TO HABITAT RESTORATION FUNDING
 - 7.5% STATE PARKS
 - 7.5% OREGON WATERSHED ENHANCEMENT BOARD (OWEB)
- OWEB = COMPETITIVE GRANTS FOR HABITAT
 - WATERSHED COUNCIL OPERATIONS SUPPORT GRANTS
~\$50K / YR = ~0.5 – 1 FTE STAFF MEMBER + OFFICE
 - OPEN COMPETITION GRANTS
 - HABITAT RESTORATION & MONITORING
 - LANDOWNER & COMMUNITY OUTREACH
 - STAKEHOLDER COORDINATION & STRATEGIC PLANNING
 - LAND PURCHASES & EASEMENTS





• **FEDERAL FUNDING PROGRAMS**

- EPA – WATER QUALITY
- USFWS – FISH & WILDLIFE
- NOAA – MARINE ANIMALS & OCEAN-GOING FISH (ANADROMOUS FISH)



Oregon
Department of Agriculture



• **STATE FUNDING PROGRAMS**

- OWEB – GRANTS OF ALL TYPES
- ODA – WATER QUALITY
- DEQ – WATER QUALITY
- OWRD – WATER QUAL. & QUANT.
- ODFW – FISH & WILDLIFE



State of Oregon
Department of Environmental Quality

**HABITAT FOR FISH
& WILDLIFE**



**WATER QUALITY
& QUANTITY
(FOR ALL USES)**



**SUSTAINABLE
WORKING LANDS
FARMS
FORESTS
& RANCHES**



HEALTHY RURAL TOWNS AND URBAN LANDS



GWYC MISSION STATEMENT

TO PROTECT, RESTORE, AND MONITOR THE QUALITY OF LOCAL NATURAL RESOURCES IN THE YAMHILL & CHEHALEM VALLEYS, THROUGH COLLABORATIVE, COMMUNITY-BASED, AND VOLUNTARY SOLUTIONS.



GYWC STUDENT VOLUNTEER SHOWS OFF WILD COHO SALMON CARCASS (MALE) FOUND ON THE UPPER NORTH YAMHILL RIVER DURING A FISH SPAWNING SURVEY CREEK WALK IN NOVEMBER 2014



Greater Yamhill Watershed Council

“GREATER YAMHILL WATERSHED”




YAMHILL VALLEY

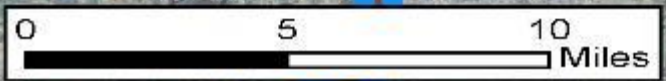
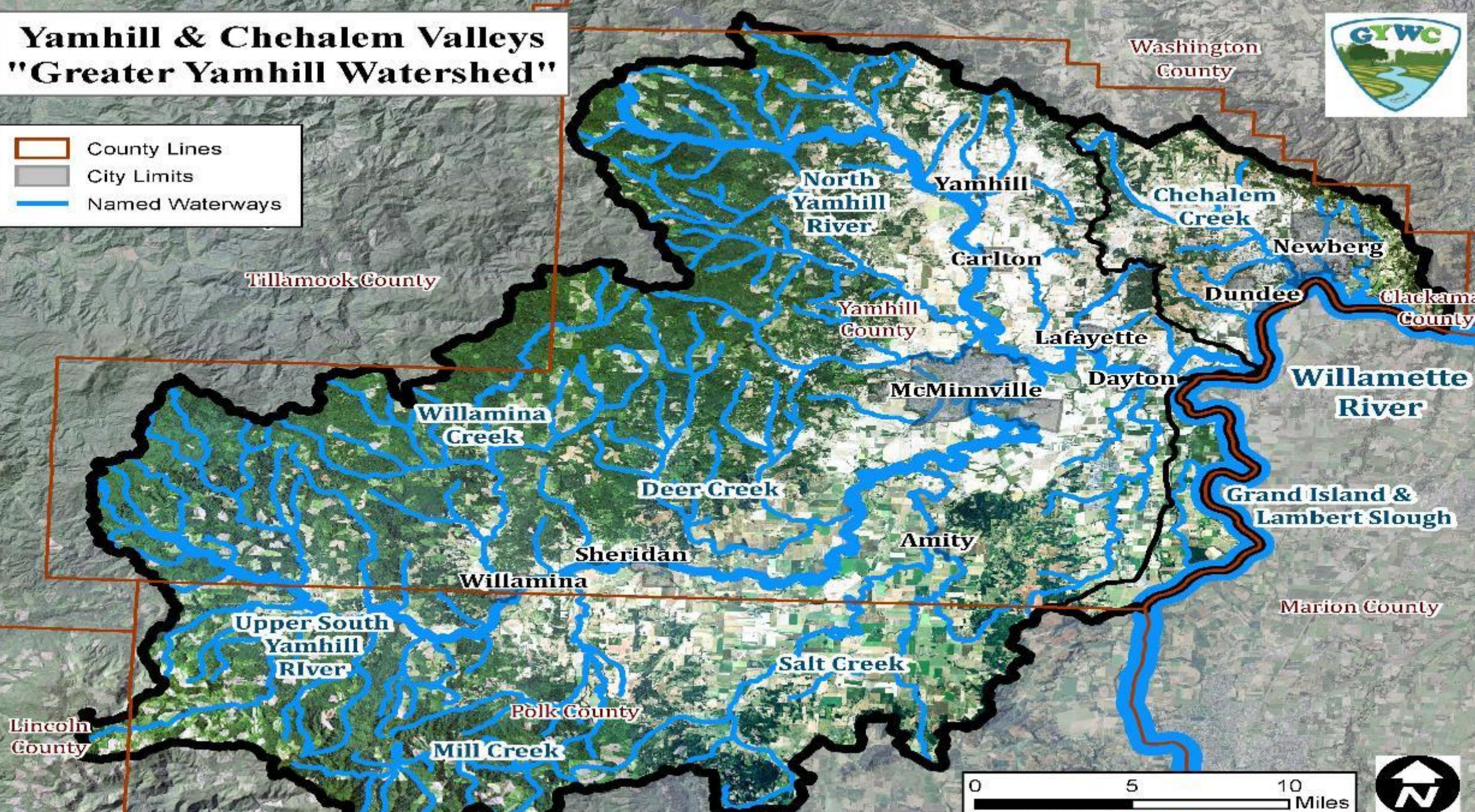
CHEHALEM VALLEY

**GRAND ISLAND &
LAMBERT SLOUGH**

Yamhill & Chehalem Valleys "Greater Yamhill Watershed"



 County Lines
 City Limits
 Named Waterways



National Agriculture Imagery Program (NAIP) under contract for the United States Department of Agriculture (USDA) for the Farm Service Agency's (FSA). Oregon Imagery Framework Implementation Team.

Yamhill & Chehalem Valleys "Greater Yamhill Watershed"



County Lines
City Limits
Named Waterways

Washington County

Tillamook County

Lincoln County

Polk County

North Yamhill River

Yamhill

Carlton

Yamhill County

Lafayette

Dayton

McMinnville

Willamina Creek

Deer Creek

Sheridan

Amity

Willamina

Upper South Yamhill River

Salt Creek

Mill Creek



YAMHILL VALLEY

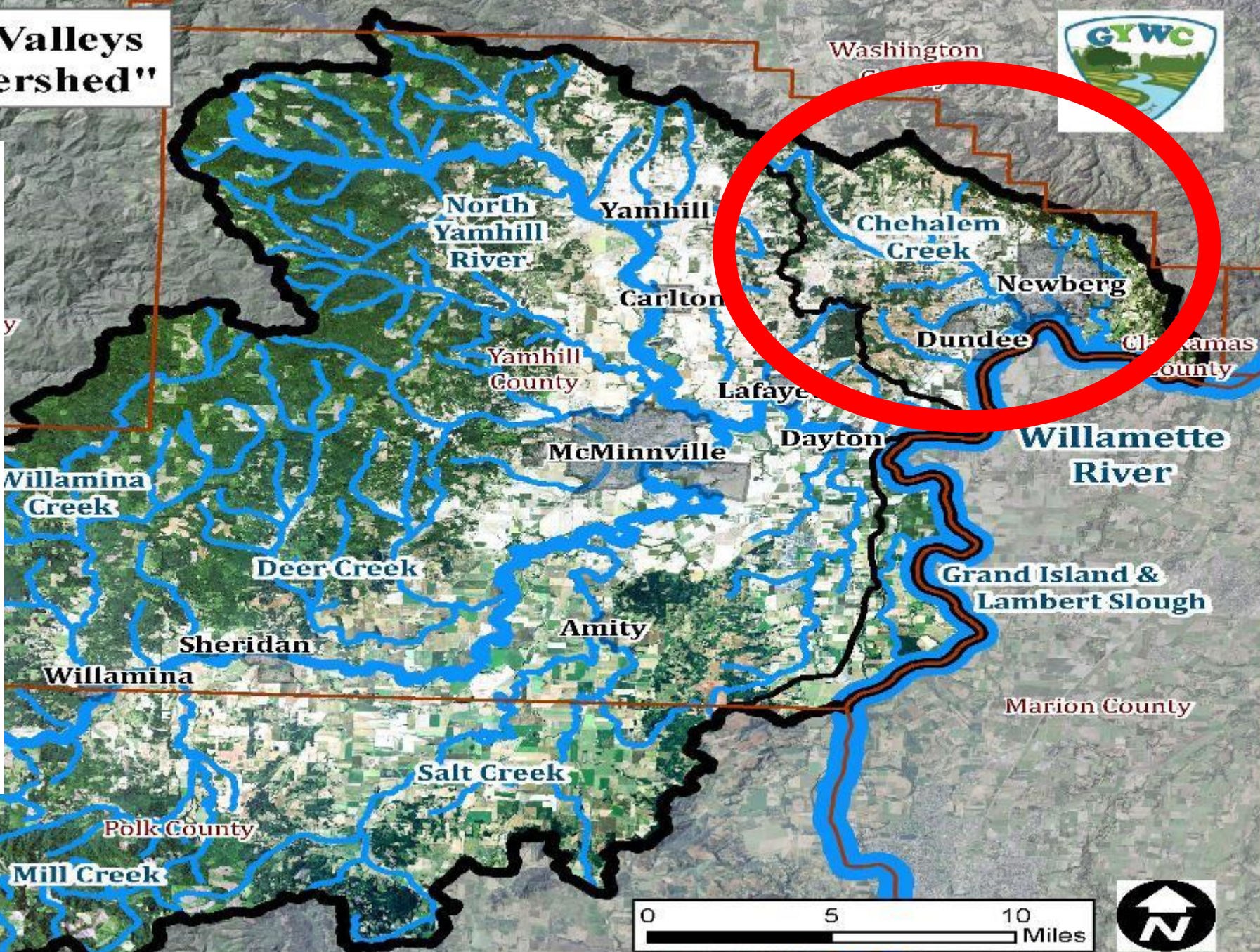
= 7 SUB-BASINS

1. SOUTH YAMHILL RIVER
2. MILL CREEK
3. WILLAMINA CREEK
4. DEER CREEK
5. SALT CREEK
6. NORTH YAMHILL RIVER
7. YAMHILL RIVER (NORTH/SOUTH COMBINED)

Yamhill & Chehalem Valleys "Greater Yamhill Watershed"



- CHEHALEM VALLEY**
- = 1 SUB-BASIN W/
SEVERAL CREEKS**
- **CHEHALEM CREEK**
- **HESS CREEK**
- **SPRINGBROOK**
- **HARVEY CREEK**



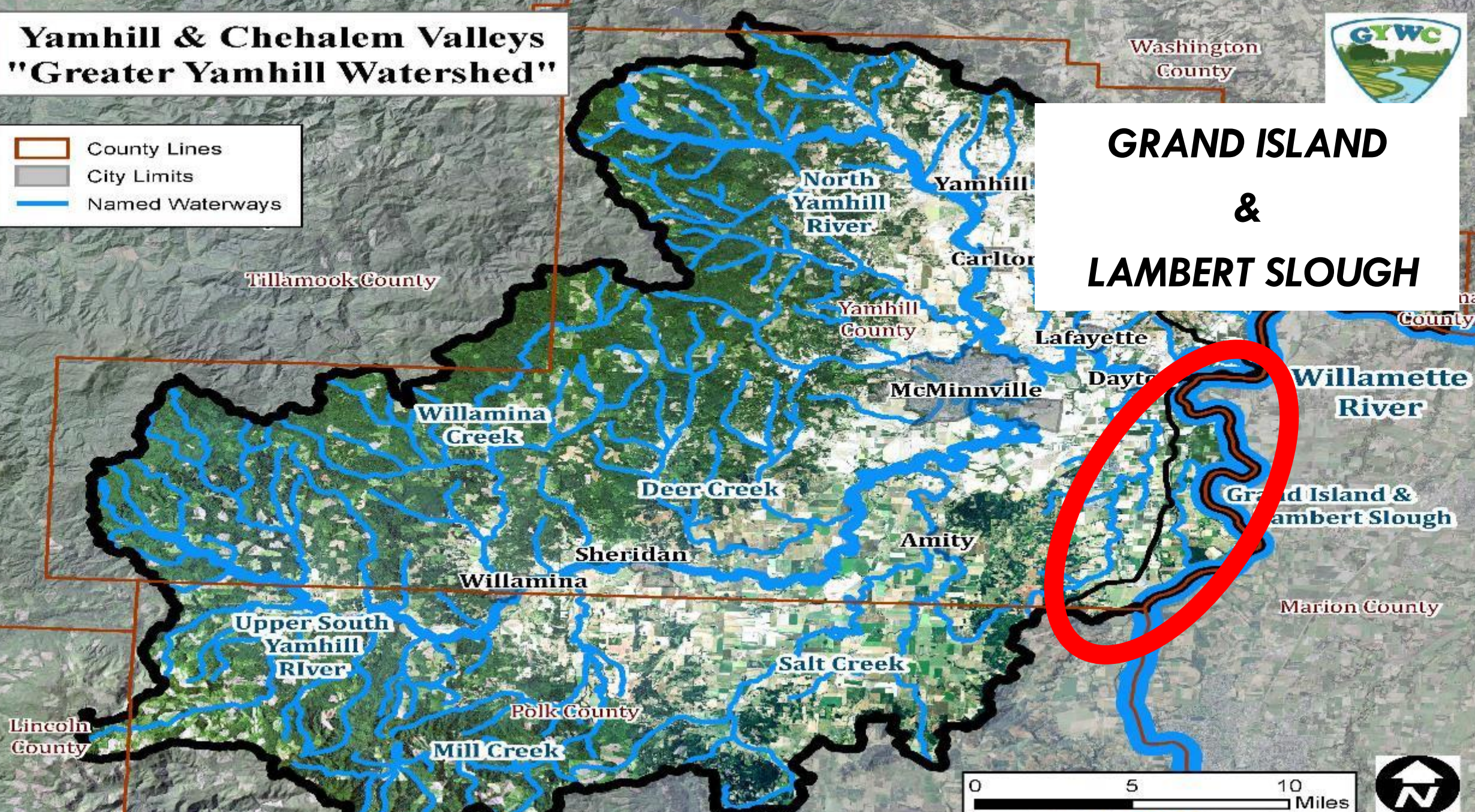
National Agriculture Imagery Program (NAIP) under contract for the United States Department of Agriculture (USDA) for the Farm Service Agency's (FSA). Oregon Imagery Framework Implementation Team.

Yamhill & Chehalem Valleys "Greater Yamhill Watershed"

- County Lines
- City Limits
- Named Waterways



**GRAND ISLAND
&
LAMBERT SLOUGH**



MAJOR LAND USES

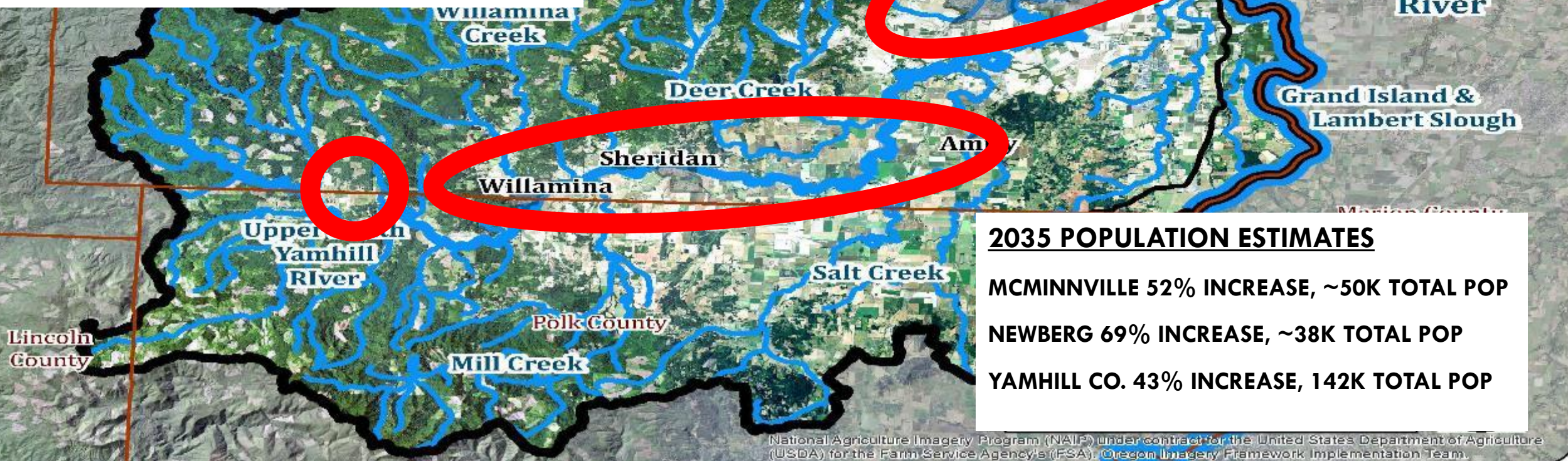
URBAN CORRIDOR

FORESTRY

AGRICULTURE

URBAN CORRIDOR

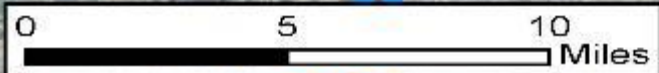
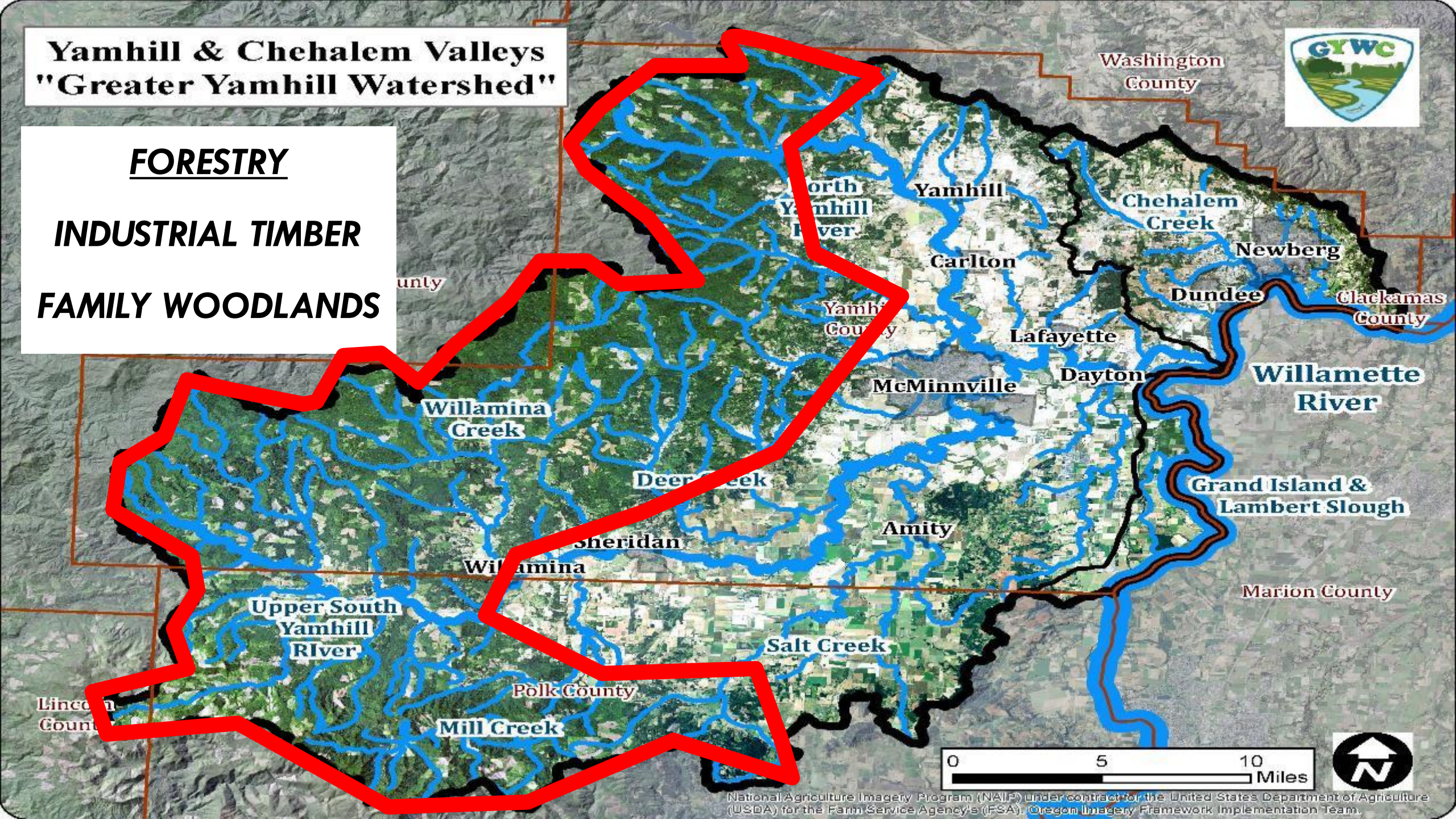
- 10 INCORPORATED CITIES
- FOLLOWS THE HIGHWAYS
- MCMINNVILLE IS COUNTY SEAT
- METRO IS EXPANDING INTO THE COUNTY



**Yamhill & Chehalem Valleys
"Greater Yamhill Watershed"**



FORESTRY
INDUSTRIAL TIMBER
FAMILY WOODLANDS



National Agriculture Imagery Program (NAIP) under contract for the United States Department of Agriculture (USDA) for the Farm Service Agency's (FSA). Oregon Imagery Framework Implementation Team.

HIGH AGRICULTURE DIVERSITY

PERENNIAL GRASSES, WHEAT, CLOVER & SEED CROPS

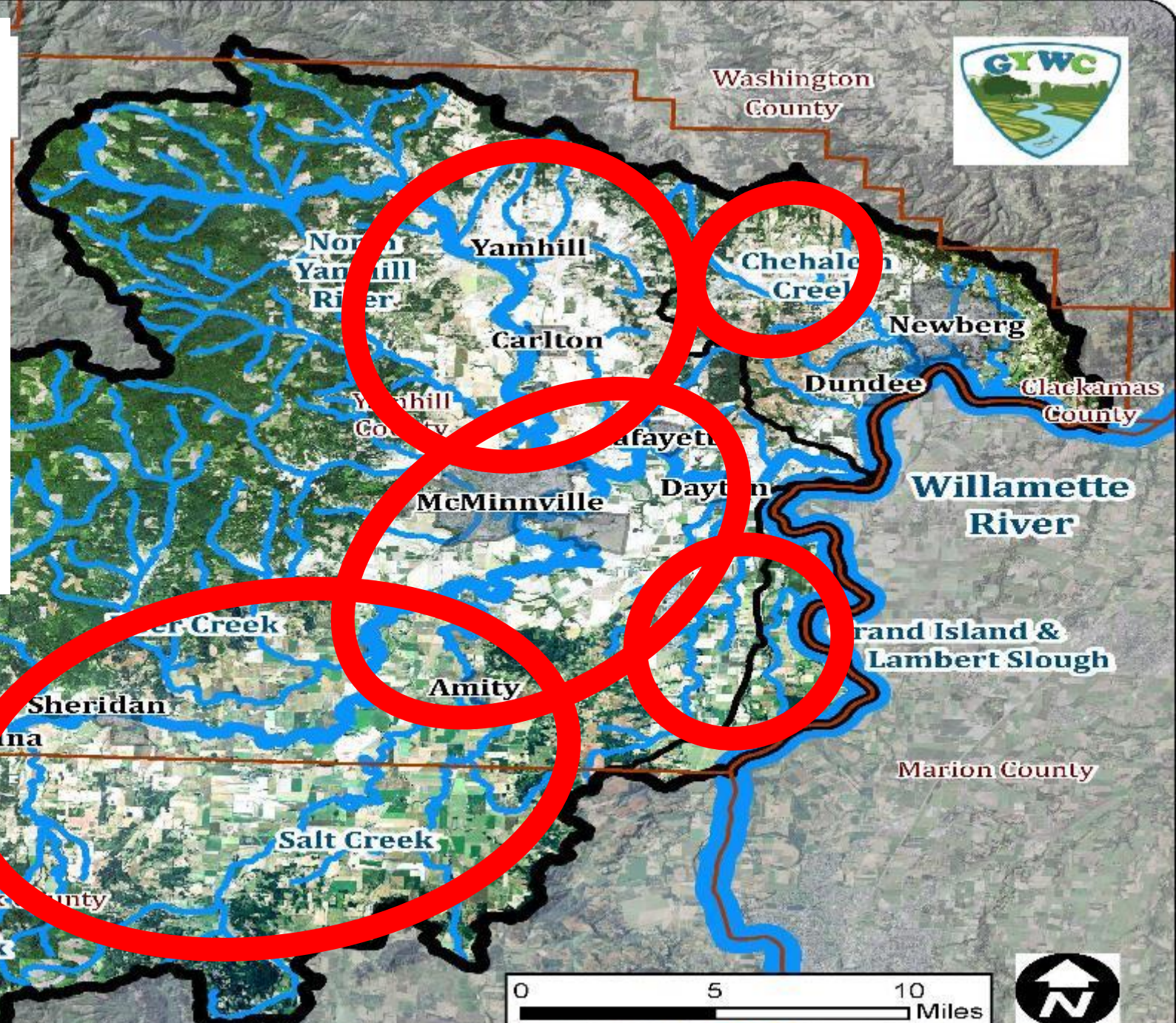
TRESSLED CROPS (VINEYARDS, CANEBERRIES, BLUEBERRIES)

ORCHARDS (HAZELNUTS ON THE RISE)

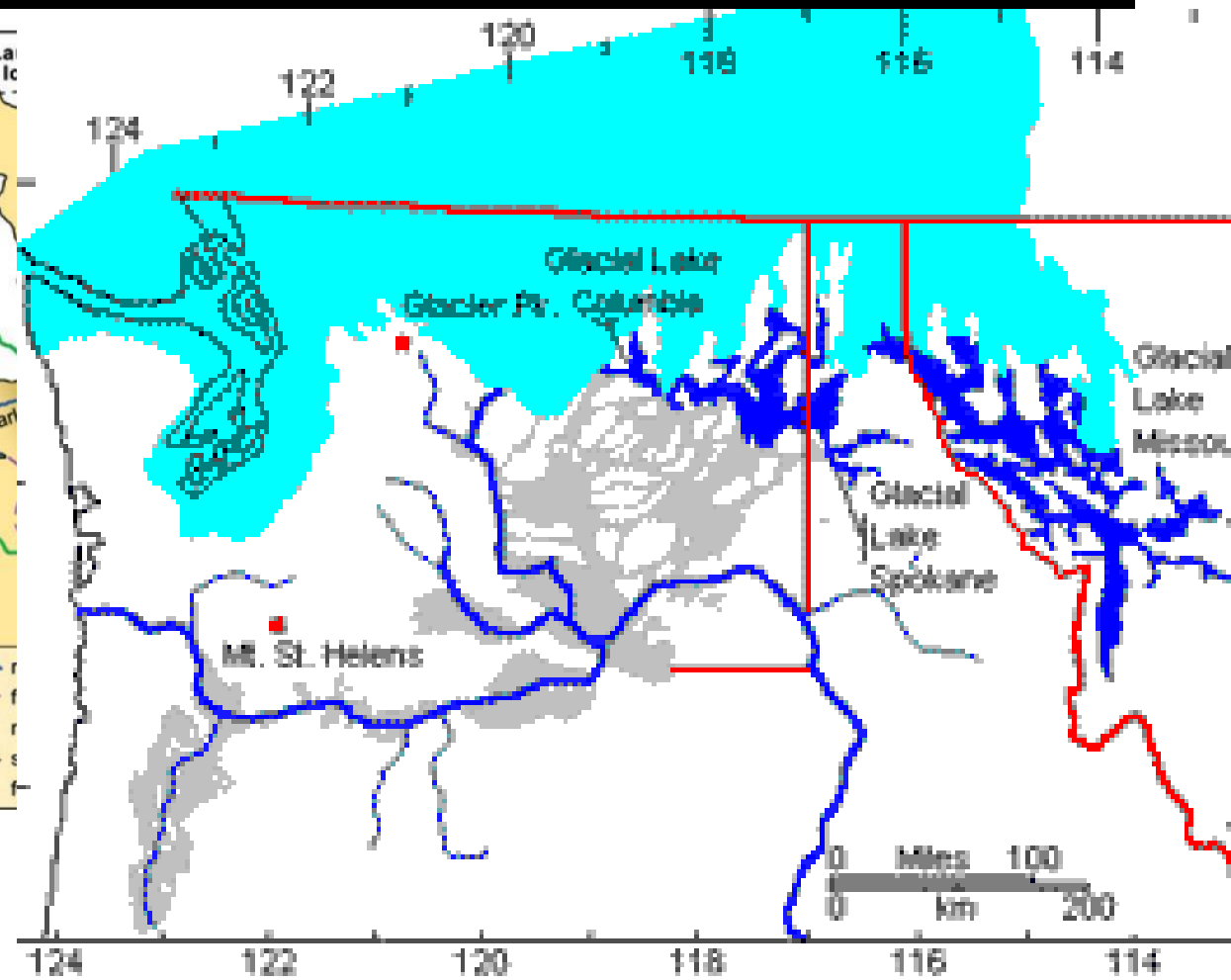
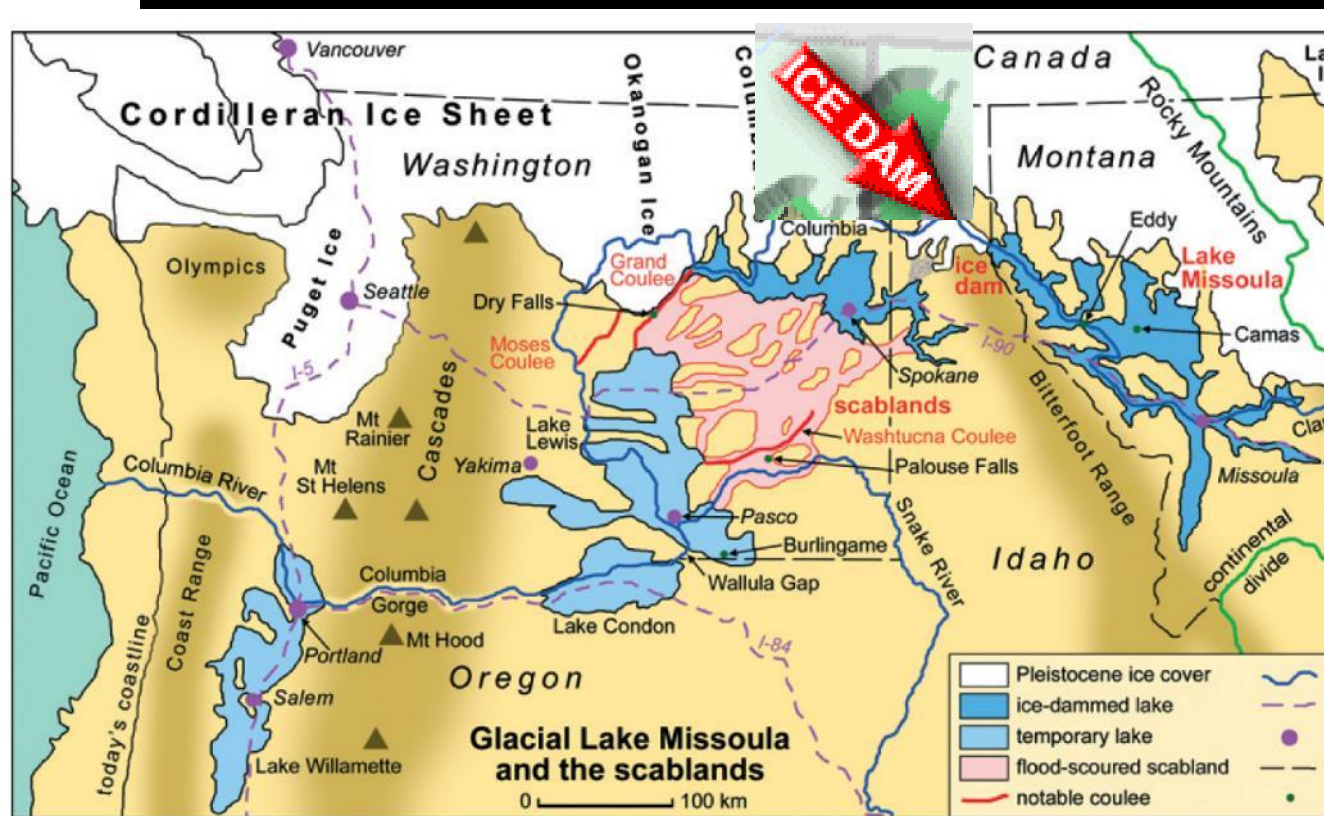
HAY / PASTURE / RANCHES

NURSERIES (POTTED & BAREROOT)

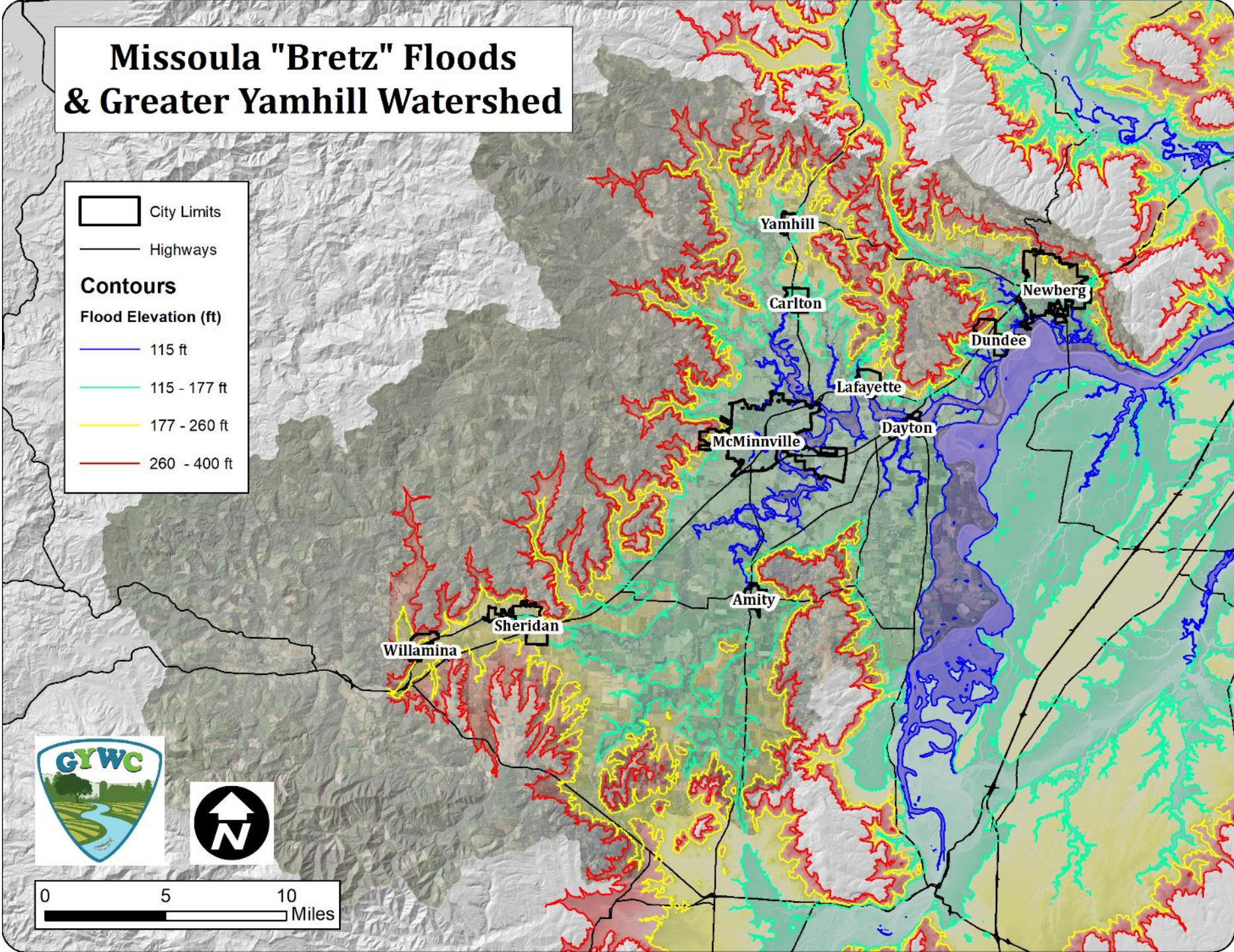
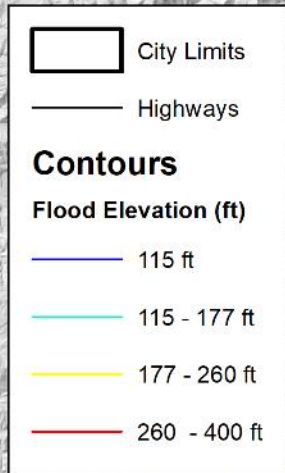
& SOME FRUITS AND VEGETABLES



At Least 40 Cataclysmic Floods Over 2,000 Years (13,000 BC to 11,000 BC)



Missoula "Bretz" Floods & Greater Yamhill Watershed



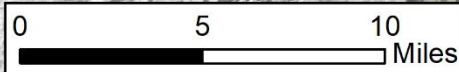
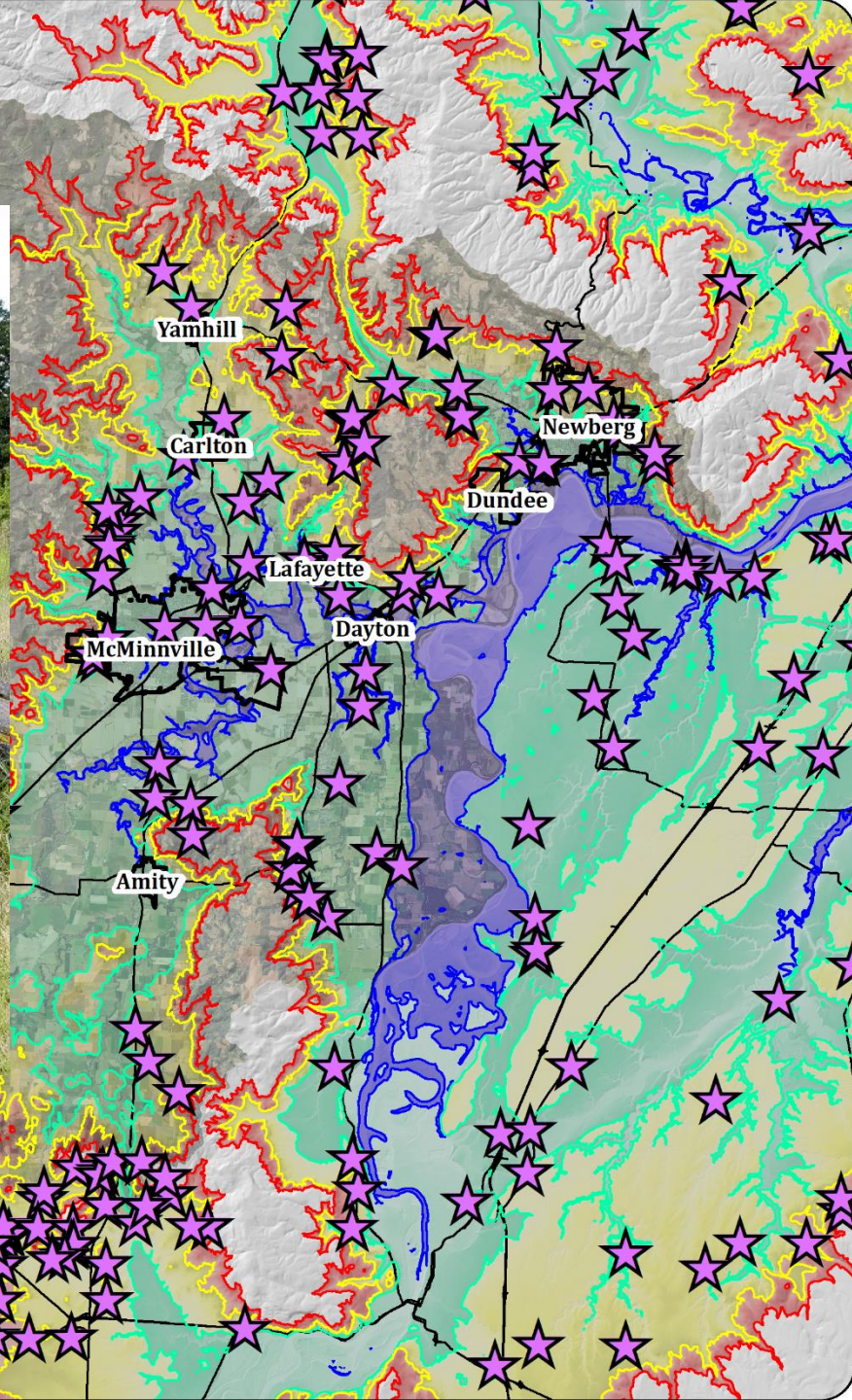
At Least 40 Floods
up to 115 ft Elev.

At Least 20 Floods
up to 177 ft Elev.

At Least 10 Floods
up to 260 ft Elev.

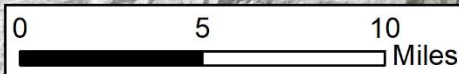
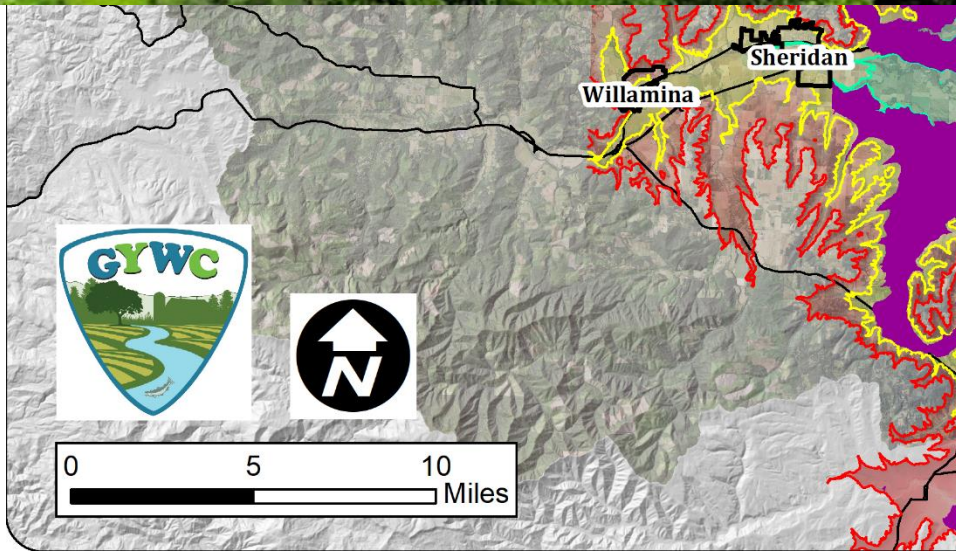
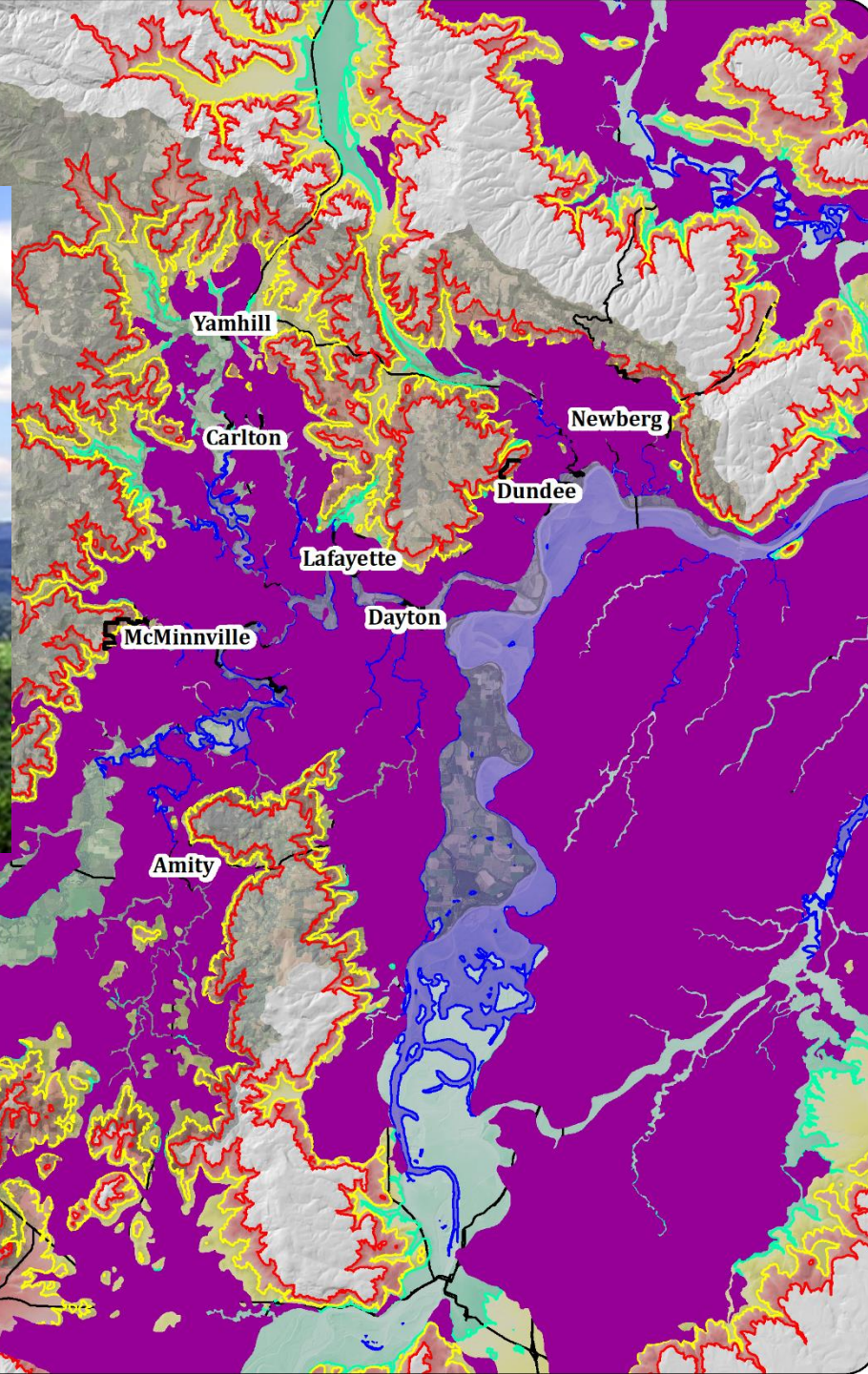
Biggest Flood
up to 400 ft Elev.

Missoula "Bretz" Floods & Greater Yamhill Watershed



Missoula "Bretz" Floods & Greater Yamhill Watershed

*Thank You Washington & Idaho,
for Your FERTILE SOILS!*



~8/10,000 Years Ago - 1845

Yamhill = ayamil & ayamhal tribes



"The Willamette River from a Mountain"



VALLEY OF THE WILLAMETTE RIVER

Controlled Fires To Manage the Land



Oaks, Prairies, & Floodplains



Oregon Oak the Tree of Life

Valley oak

Leaves

Tinder, earth oven lining, fodder for stock

Galls

Basketry, hair dyes, medicines, tattoo staining

Burl

Bowls, cups, dippers, ladles, mortars

Fungi

Foods, medicines

Sprouts

Basketry, digging sticks, arrows, boats, rod armor, traps, fire drills, cooking tongs, stirring sticks, clothing, games

Fruits (acorns)

Bait, toys, games, foods, medicines, jewelry, musical instruments

Branches

Bull roarers, weapons, firewood, awls, fish hooks, hide scrapers, needles, netting shuttles, spears

Bark

Hide tanning, medicines, basketry dyes

Trunk

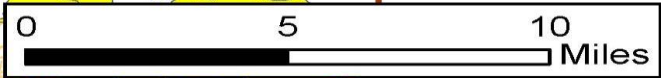
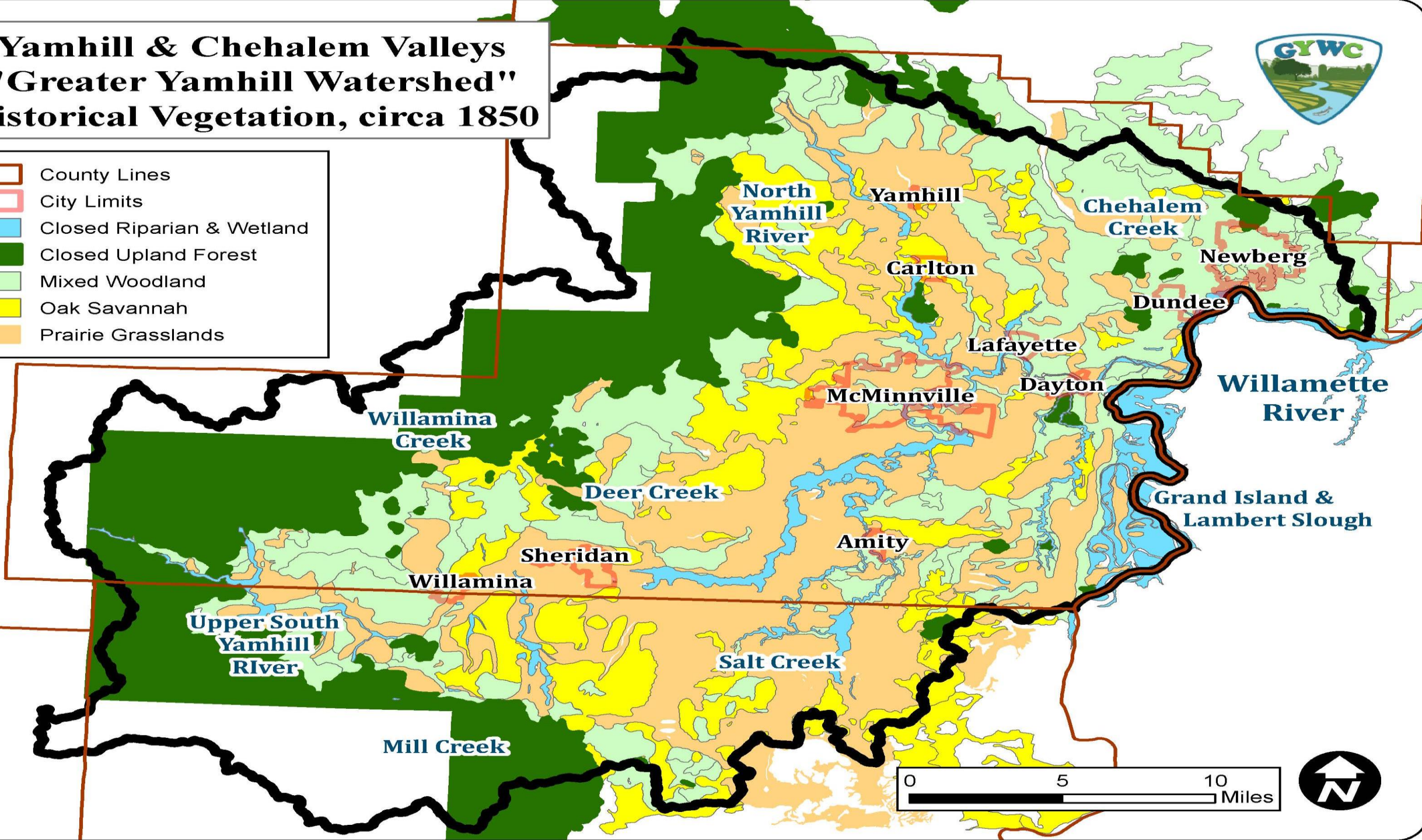
Firewood, drums, structures, medicines



Yamhill & Chehalem Valleys "Greater Yamhill Watershed" Historical Vegetation, circa 1850



- County Lines
- City Limits
- Closed Riparian & Wetland
- Closed Upland Forest
- Mixed Woodland
- Oak Savannah
- Prairie Grasslands



Euro-Settlement of Willamette

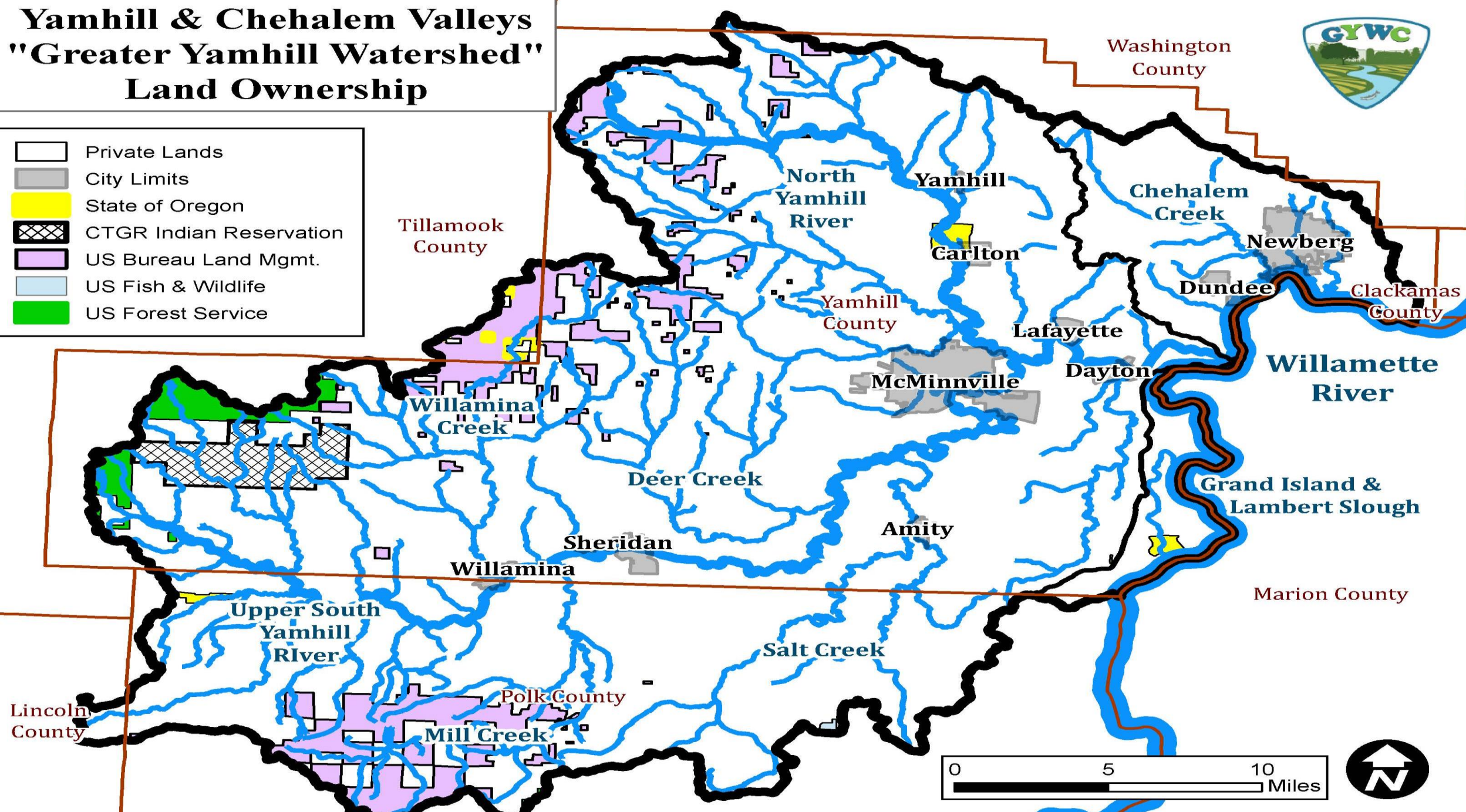


Illustration by S. S. & D. D. for J. M. Morse, Portland, Ore.

Yamhill & Chehalem Valleys "Greater Yamhill Watershed" Land Ownership



-  Private Lands
-  City Limits
-  State of Oregon
-  CTGR Indian Reservation
-  US Bureau Land Mgmt.
-  US Fish & Wildlife
-  US Forest Service



OAK SAVANNA & PRAIRIE GRASSLANDS

- WILLAMETTE VALLEY HISTORICALLY 1,000,000 ACRES OF OAK/PRAIRIE
- GREATER YAMHILL WATERSHED HISTORICALLY 30% OF TOTAL ACRES
- NOW LESS THAN 1% OF HISTORIC RANGE DUE TO SETTLEMENT AND DEVELOPMENT
- ENDANGERED FENDER'S BLUE BUTTERFLY AND KINCAID'S LUPINE
 - ENDEMIC TO WILLAMETTE VALLEY
 - DISCOVERED OUTSIDE MCMINNVILLE



STREAMS AND RIVERS

- YAMHILL RIVER, LARGEST WEST-SIDE TRIBUTARY TO WILLAMETTE RIVER
- 360+ MILES OF SALMONID BEARING STREAMS & RIVERS (TROUT & SALMON)
- MORE THAN HALF OF STREAM MILES ARE LISTED AS POLLUTED AND MOST STREAMS LACK FOREST BUFFERS
- PRIMARY POLLUTANTS INCLUDE TEMPERATURE, LACK OF DISSOLVED OXYGEN, BACTERIA, NUTRIENTS, AND PESTICIDES



FISH POPULATIONS



Figure 8. Agency Creek Winter Steelhead.



RESIDENT CUTTHROAT TROUT



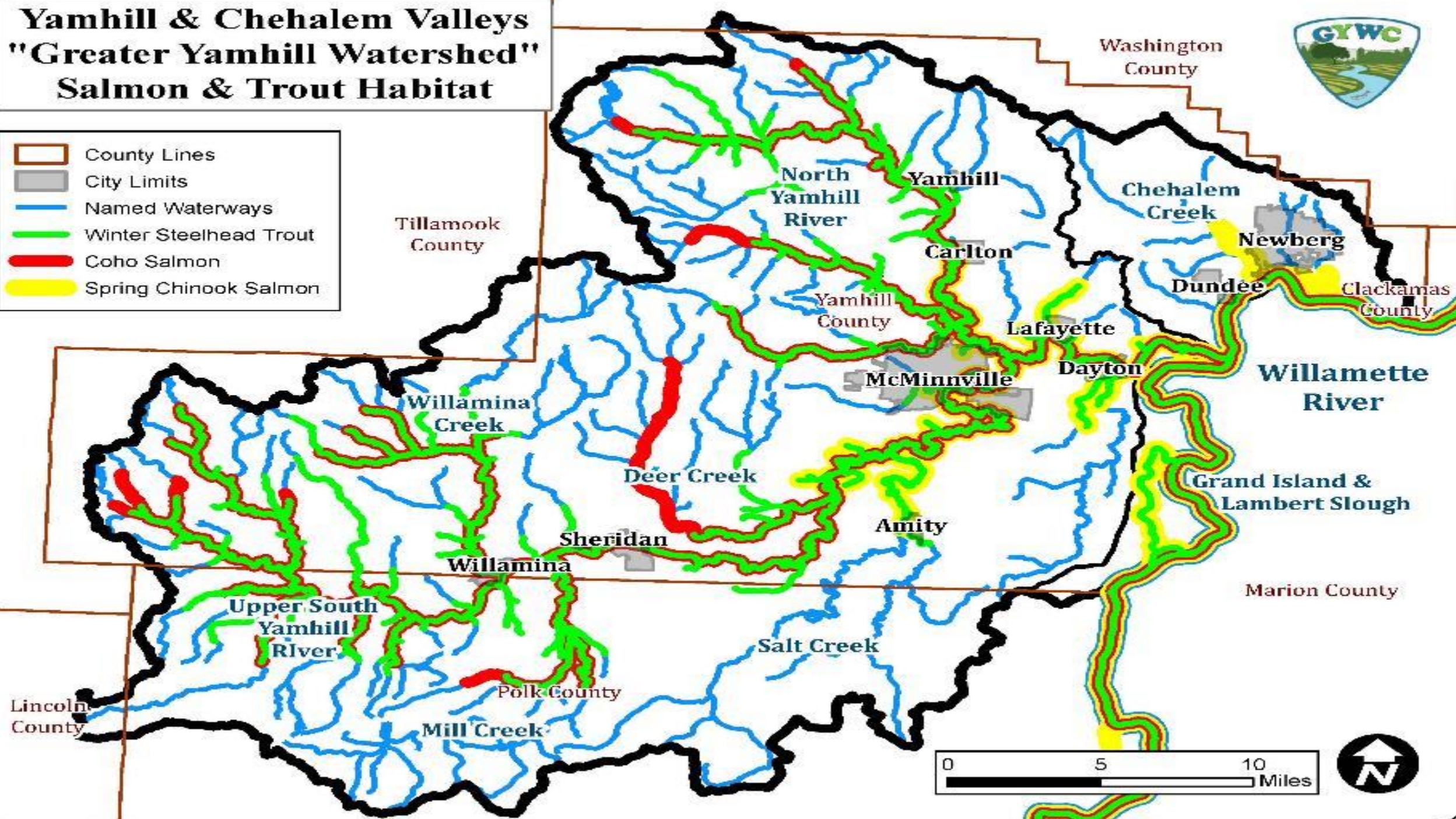
PACIFIC LAMPREY
HESS CREEK, NEWBERG



Yamhill & Chehalem Valleys "Greater Yamhill Watershed" Salmon & Trout Habitat



- County Lines
- City Limits
- Named Waterways
- Winter Steelhead Trout
- Coho Salmon
- Spring Chinook Salmon

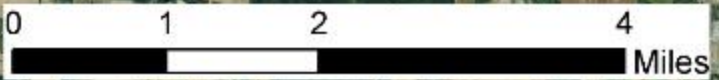
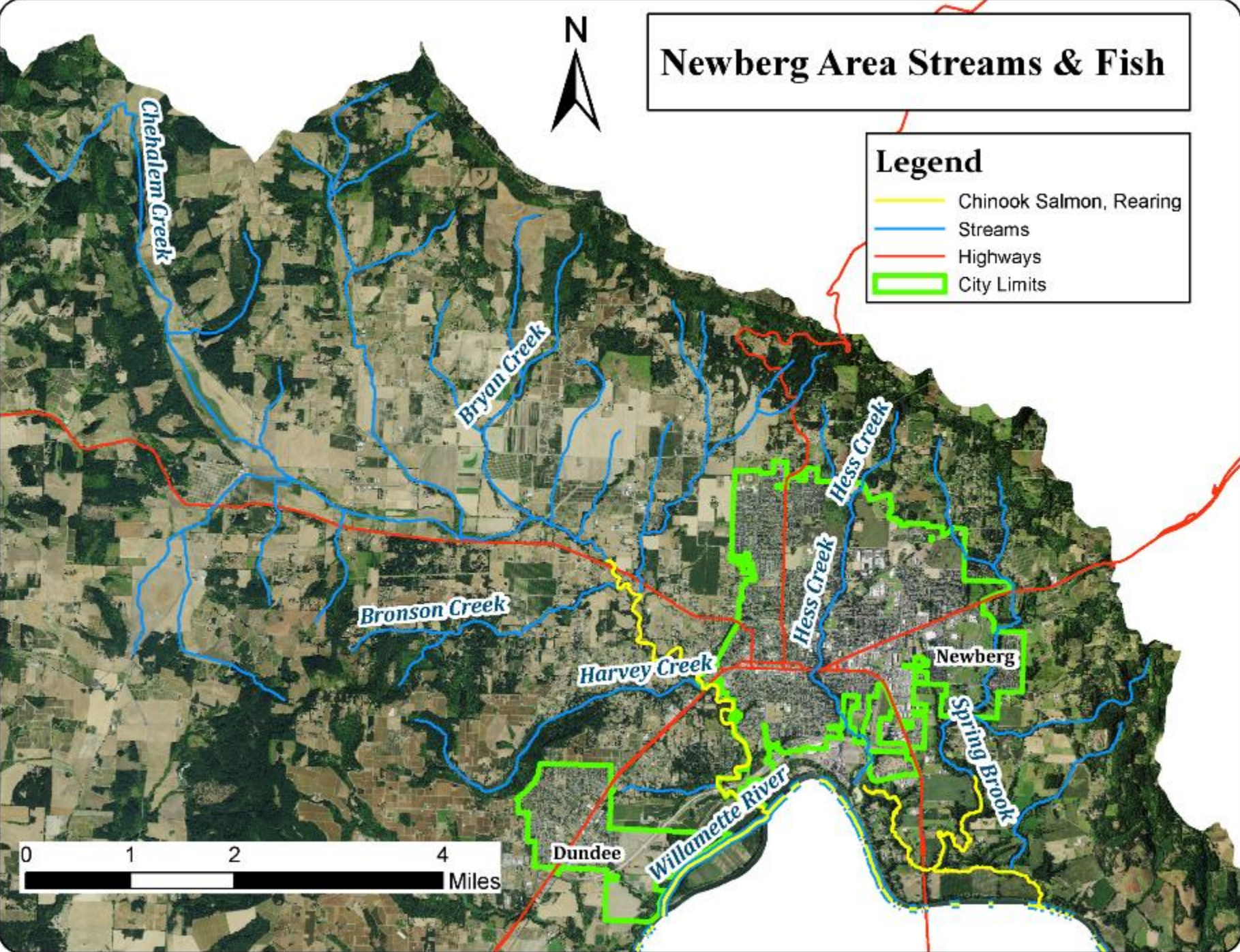


Newberg Area Streams & Fish



Legend

- Chinook Salmon, Rearing
- Streams
- Highways
- City Limits



**KNOWN LOCAL
WATER QUALITY
POLLUTANTS
(SEE TABLE
"TMDL PENDING")**

BIOCRITERIA

CHLOROPHYLL A

CHLORPYRIFOS (INSECTICIDE)

COPPER

DISSOLVED OXYGEN

E. COLI

FECAL COLIFORM

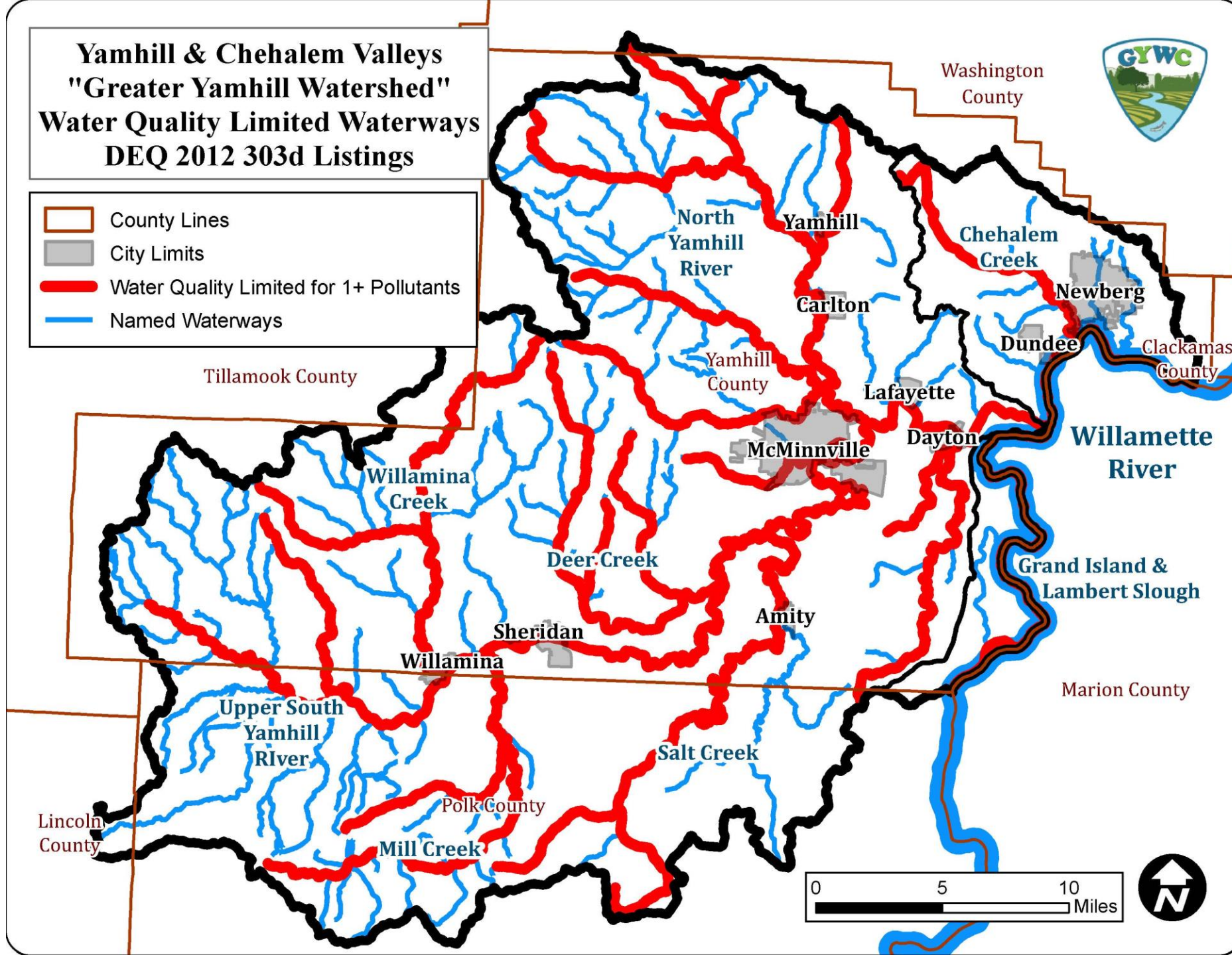
IRON

LEAD

MERCURY

TEMPERATURE

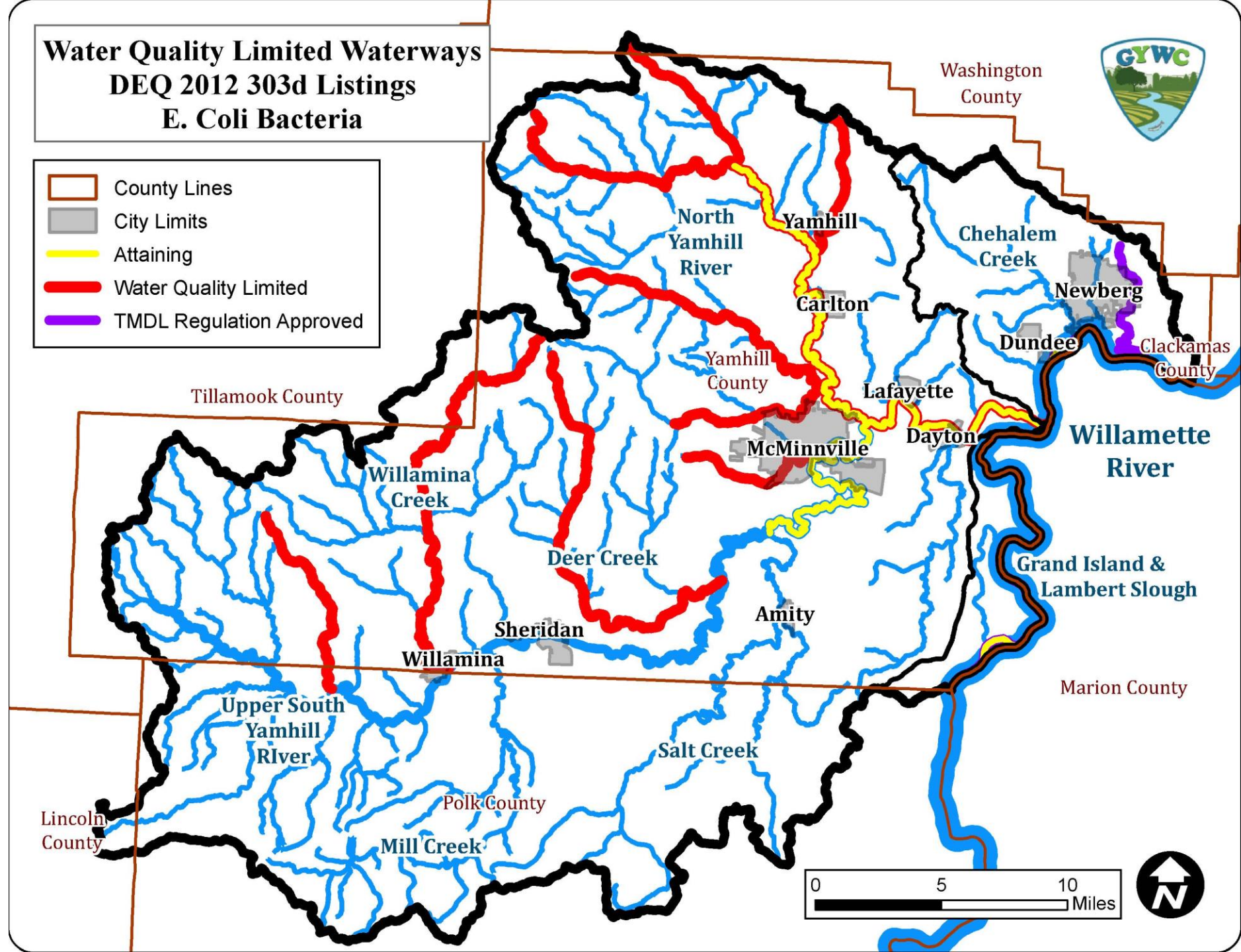
TURBIDITY



E. COLI BACTERIA

COMMON SOURCES

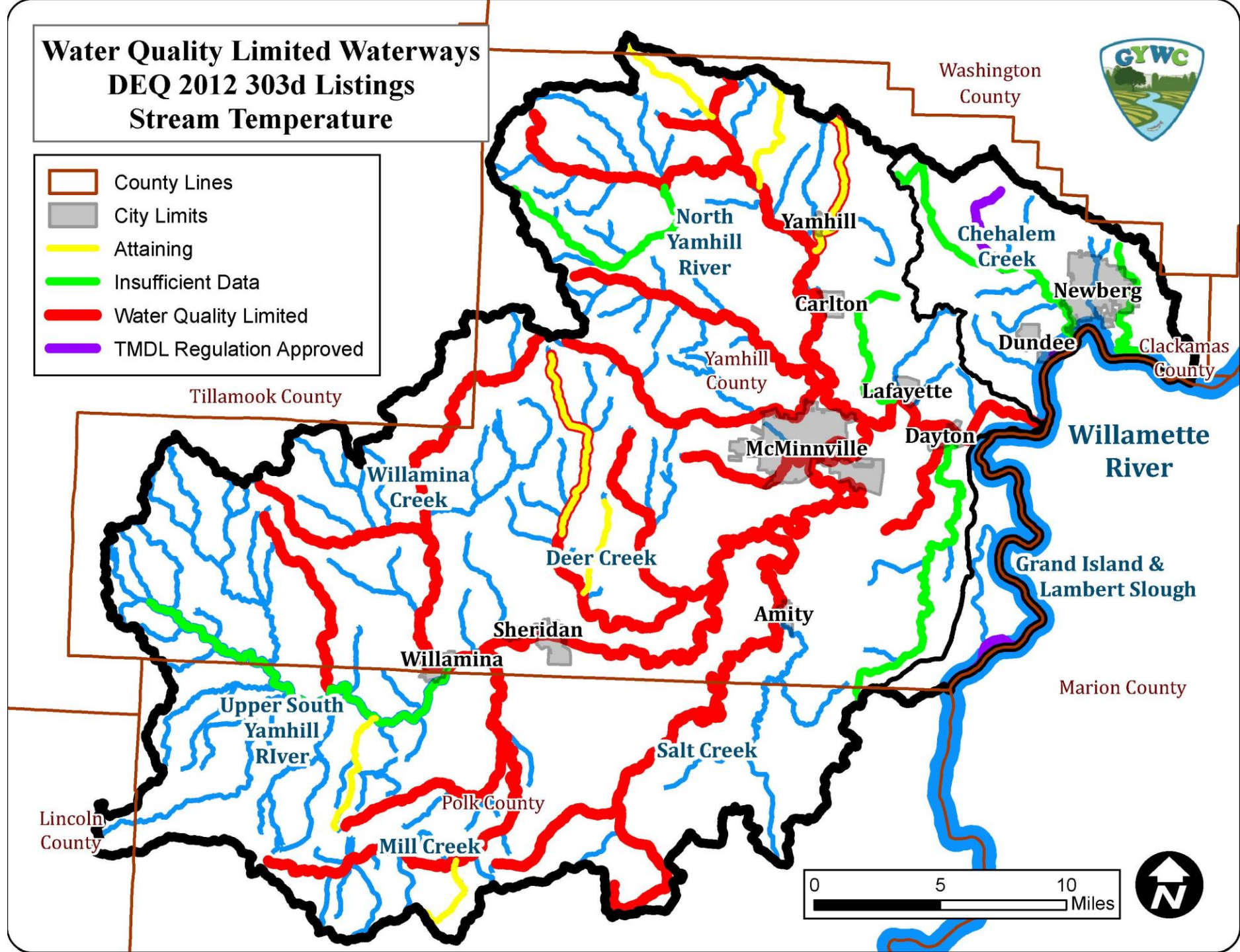
- LIVESTOCK
- MANURE PILES
- WILDLIFE (GEESE)
- PET WASTE
- SEPTIC SYSTEMS
- SEWER PIPES



STREAM TEMPERATURE

COMMON SOURCES

- LACK OF SHADY VEGETATION
- LACK OF FLOW
- IMPOUNDMENTS & PONDS
- URBAN HEAT ISLAND
- CHANNEL SIMPLIFICATION



HOW CAN YOU SHAPE THE FUTURE?



STAY CONNECTED & INFORMED!

- **JOIN OUR MONTHLY E-NEWS LIST**



- **LIKE US ON FACEBOOK**



- **ATTEND MONTHLY PUBLIC BOARD MEETINGS**

1ST TUESDAY OF THE MONTH

@ MCMINNVILLE PUBLIC LIBRARY CARNEGIE ROOM

6:30PM SOCIAL & PIZZA

7PM-8PM BOARD MEETING & PROJECT UPDATES



*GOT TECHNICAL OR
PLANNING EXPERIENCE?*

**GET INVOLVED IN OUR
LEADERSHIP TEAMS!**

JOIN OUR GYWC BOARD OF DIRECTORS!

BOARD MEMBERSHIP ELIGIBILITY

OPEN TO THOSE WHO LIVE, WORK, OR VOLUNTEER

WITHIN THE YAMHILL OR CHEHALEM VALLEYS,

AND WHO SUPPORT THE GYWC'S MISSION FOR

VOLUNTARY-BASED LOCAL NATURAL RESOURCES CONSERVATION

ATTEND QUARTERLY GYWC

TECHNICAL COMMITTEE MEETINGS

CHECK ONLINE & E-NEWS FOR DATES / LOCATIONS

1ST TECH MTG OF 2019 ~ MARCH / APRIL

**MORE THAN 40+
PUBLIC, PRIVATE, AND TRIBAL
STAKEHOLDERS ARE WORKING
ON LOCAL CONSERVATION IN
THE YAMHILL & CHEHALEM
VALLEYS**

VOLUNTEER
OUTDOORS

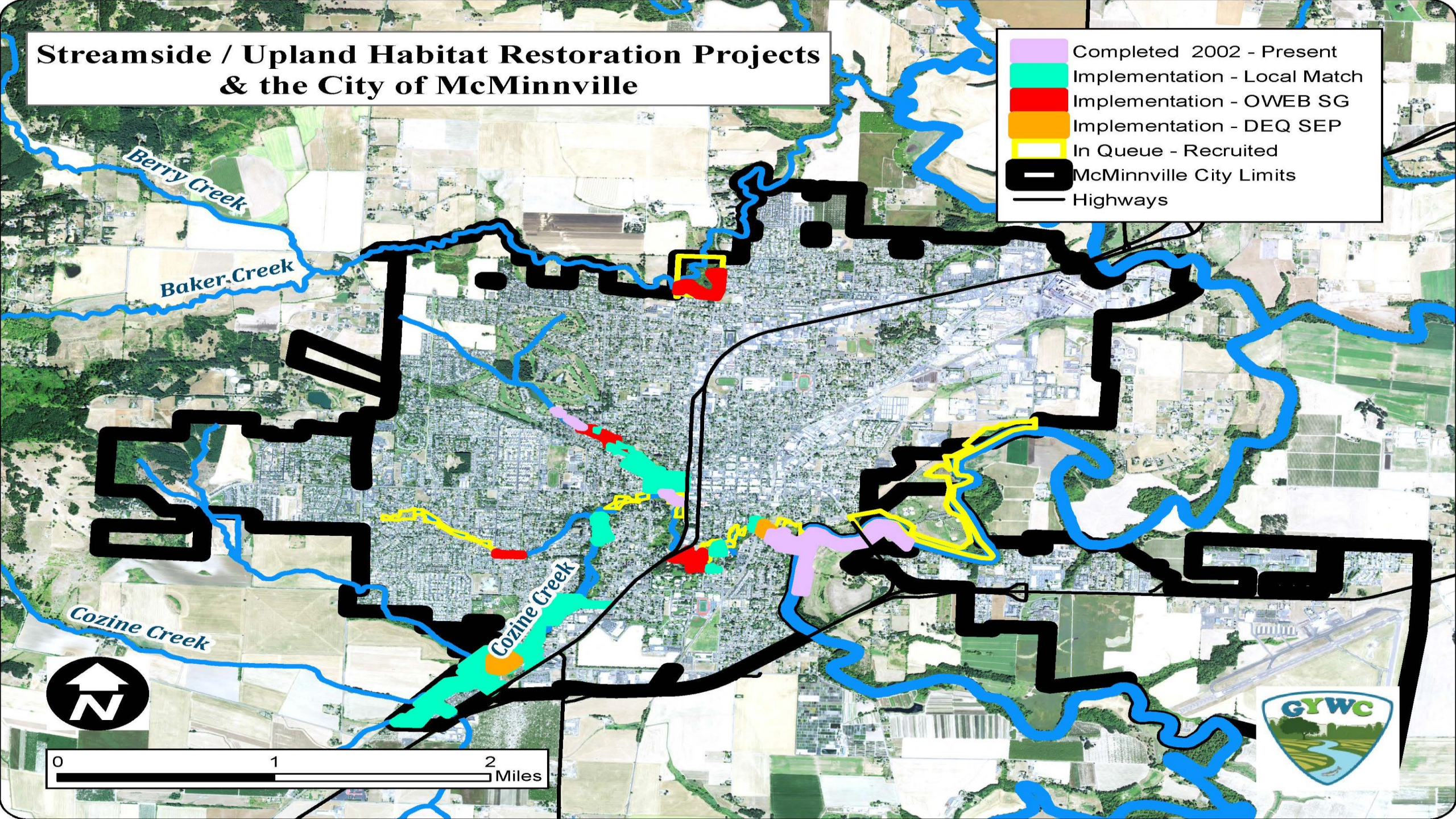
HABITAT RESTORATION

- (YEAR-ROUND) WEEDING & PROJECT MAINTENANCE WORK PARTIES
- (JUN – SEP) CREEK TRASH CLEANUPS & NATIVE PLANT SEED COLLECTION
- (OCT – MAR) NATIVE PLANT LIVE STAKE CUTTING COLLECTION AND NATIVE PLANTING WORK PARTIES



Streamside / Upland Habitat Restoration Projects & the City of McMinnville

- Completed 2002 - Present
- Implementation - Local Match
- Implementation - OWEB SG
- Implementation - DEQ SEP
- In Queue - Recruited
- McMinnville City Limits
- Highways



Our Neighborhoods:

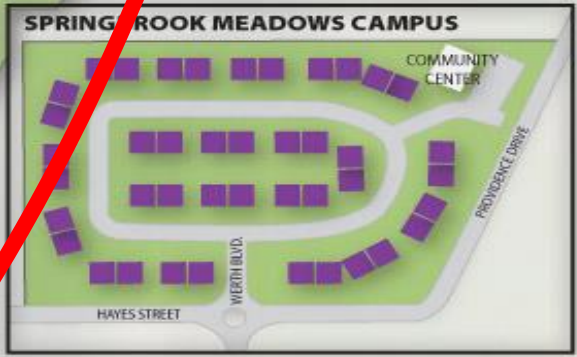
- **Springbrook Meadows**
2-3 Bedroom/Den Duplexes (See Inset, lower right)
- **The Manor**
Studios, 1 and 2 Bedroom Apartments
- **Creekside**
Studios, 1 and 2 Bedroom Apartments
- **Gardenside**
Studios, 1 and 2 Bedroom Apartments
- **Spaulding Oaks**
1 and 2 Bedroom Condominiums
- **Cherry Street Village**
2 Bedroom Duplexes, Four-plexes and 2-3 Bedroom Homes
- **Meadow Way**
2 Bedroom/Den Duplexes

The neighborhoods on this map are color-coded to match the inserts in the back of the marketing folder.



SPALDING OAKS
(Friendsview owns 13 condominiums in this neighboring adult community)

MERIDIAN STREET



GEORGE FOX UNIVERSITY ATHLETIC FIELDS

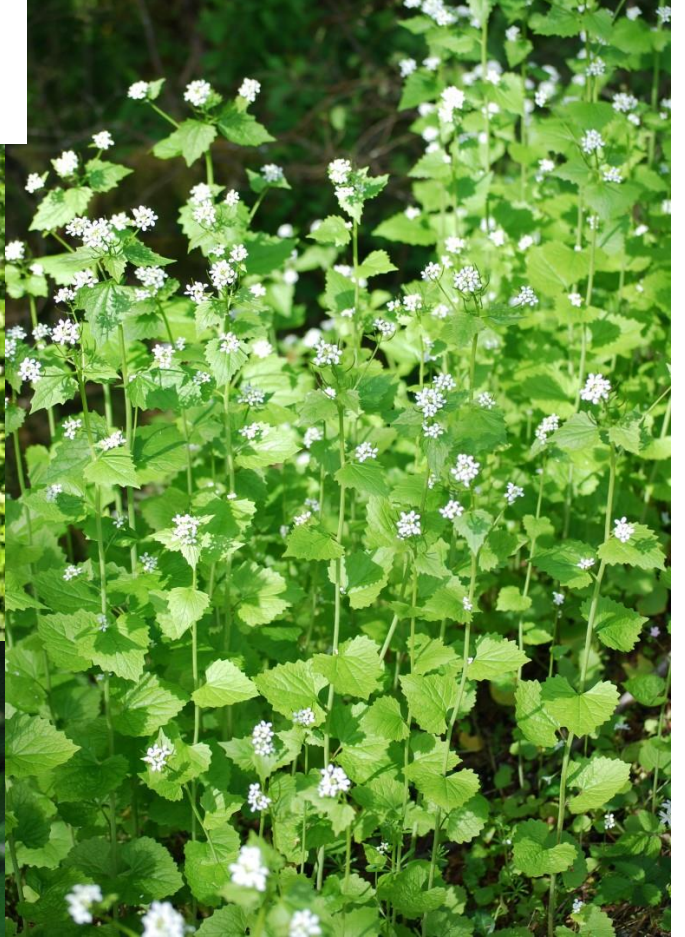
GEORGE FOX UNIVERSITY

To Springbrook Meadows (2.2 miles) →

Japanese Knotweed



Garlic Mustard



FISH & HABITAT SURVEYS

- FEB – MAY WINTER STEELHEAD
- OCT – DEC COHO SALMON
- MAY – AUG LAMPREY E-DNA

WATER QUALITY MONITORING

- (MAR – OCT) PESTICIDES & STREAM FLOW
- (MAY – OCT) SUMMER STREAM TEMPERATURE





QUESTIONS?

WHAT INTERESTS YOU?

**LUKE WESTPHAL
GYWC EXECUTIVE DIRECTOR**

**LUKE@GYWC.ORG
503-474-1047**

**SLIDES & MAPS ONLINE @
WWW.GYWC.ORG/DATA**