



Greater Yamhill Watershed Council



**OUR LOCAL
WATERSHEDS**

**YAMHILL RIVER
& CHEHALEM CREEK**

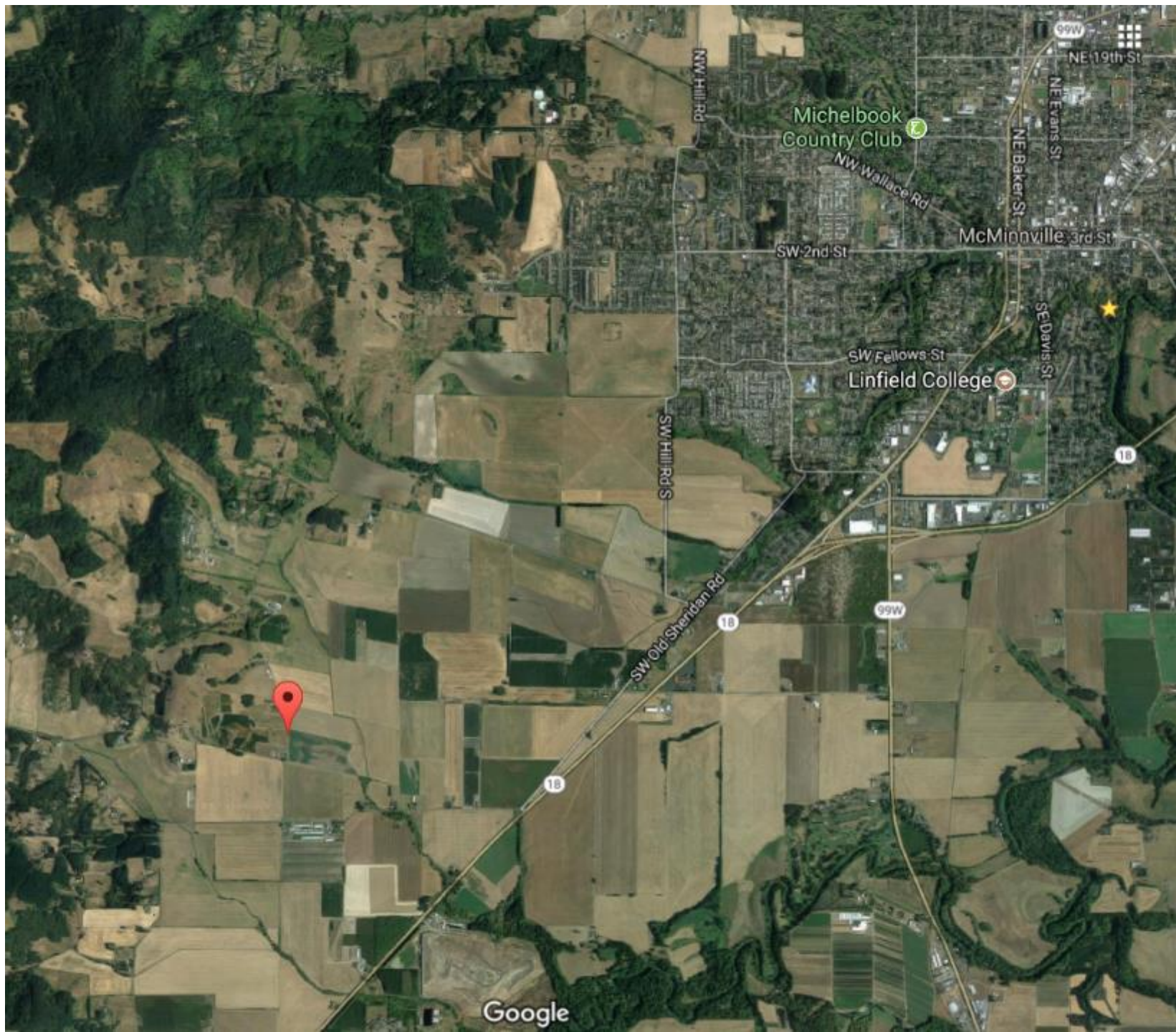
GREATER YAMHILL WATERSHED COUNCIL

LUKE WESTPHAL, EXECUTIVE DIRECTOR

FEBRUARY 2019

TOPICS OVERVIEW

- WATERSHEDS & WATERSHED COUNCILS
- LOCAL LAND USE, BRIEFEST HISTORY LESSON (13K BC – PRESENT), & LAND OWNERSHIP
- PRIORITY HABITATS & SPECIES
- WATER QUALITY & POLLUTION
- HOW YOU CAN IMPACT THE FUTURE!









CITY OF *Salem*
AT YOUR SERVICE
Public Works Department





CITY OF *Salem*
AT YOUR SERVICE

Public Works Department



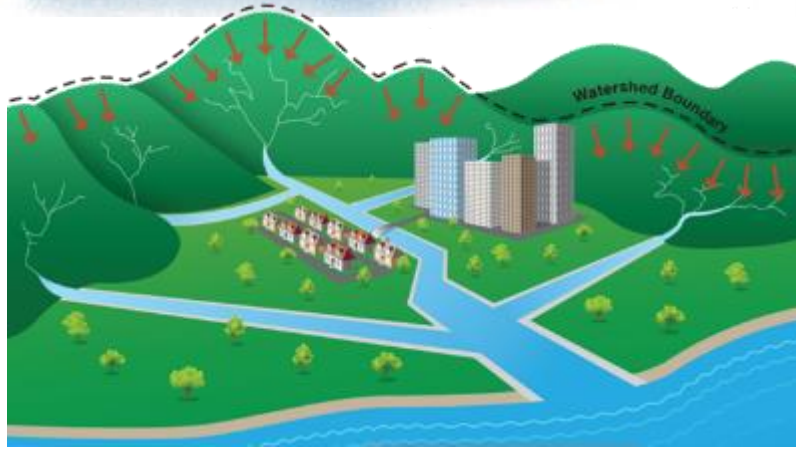


CITY OF *Salem*
AT YOUR SERVICE
Public Works Department



WHAT'S A WATERSHED?

LANDS THAT DRAINS TO A SPECIFIC WATER BODY



HOW WATERSHEDS WORK



- STREAMS
- RIVERS
- LAKES
- OCEANS
- & MORE

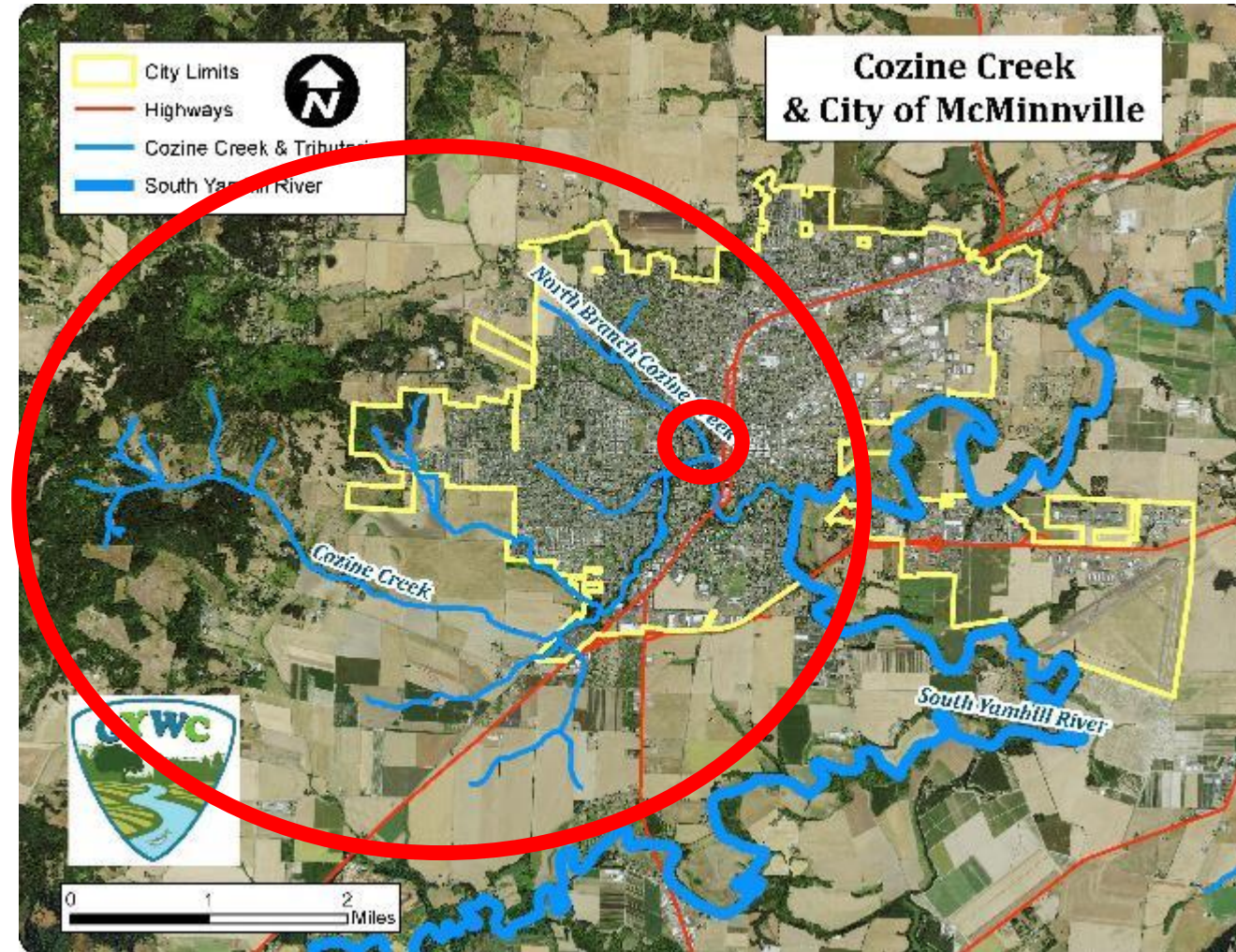
WATERSHEDS COME IN ALL SIZES

1. MAC LIBRARY
GUTTERS &
PARKING LOT
STORMWATER
PIPES



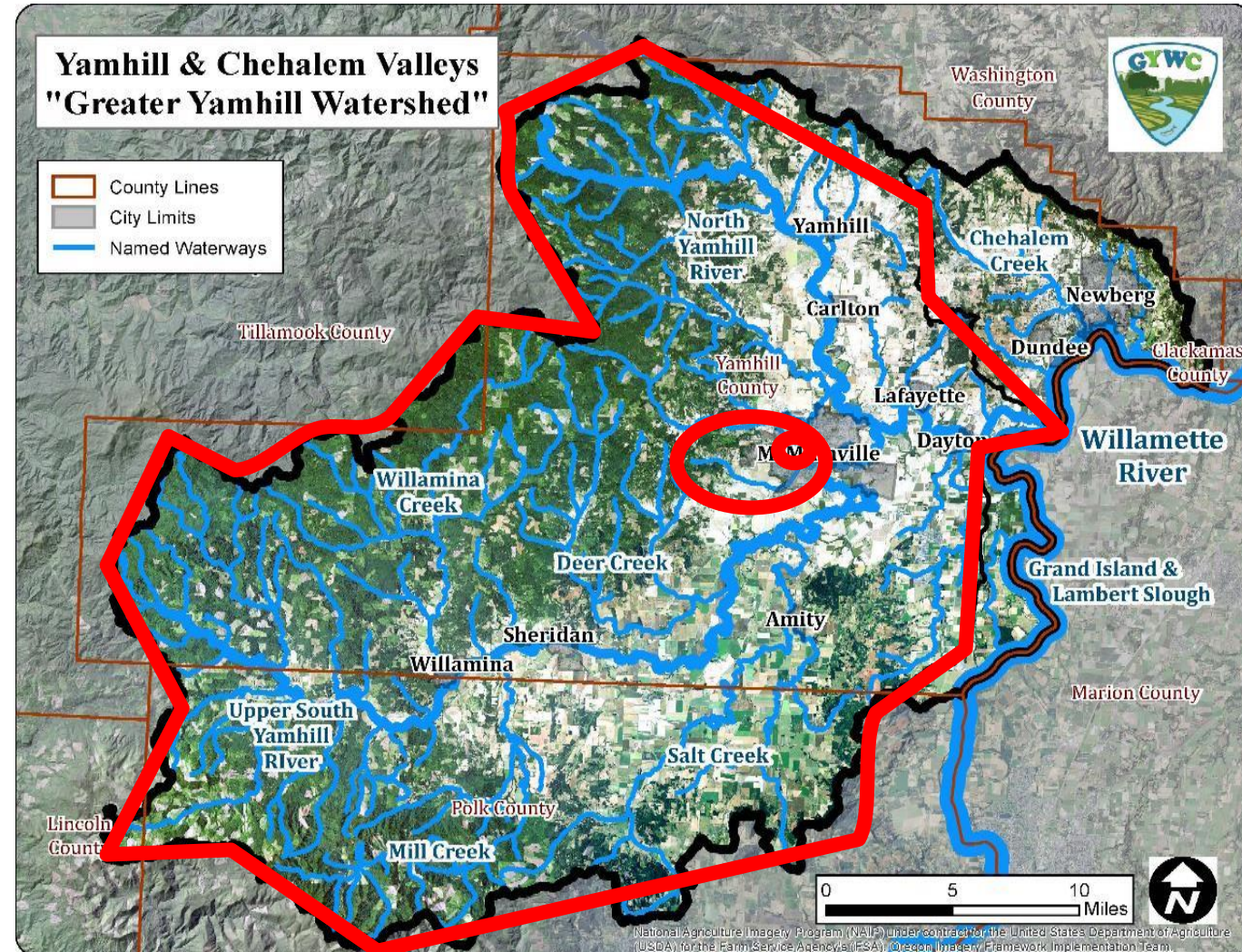
WATERSHEDS COME IN ALL SIZES

1. MAC LIBRARY
2. COZINE CREEK



WATERSHEDS COME IN ALL SIZES

1. MAC LIBRARY
2. COZINE CREEK
3. YAMHILL RIVER



WATERSHEDS COME IN ALL SIZES

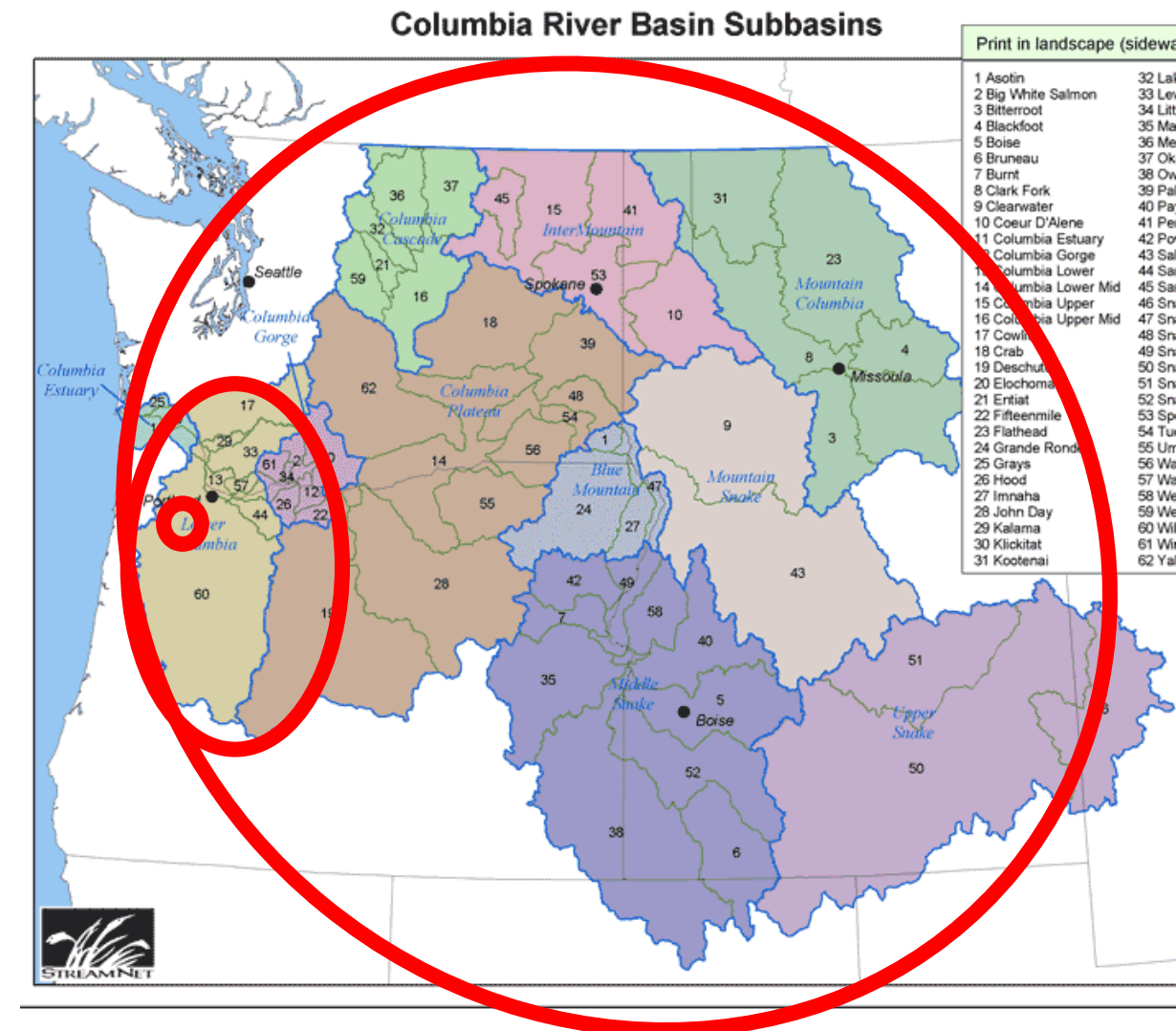
1. MAC LIBRARY
2. COZINE CREEK
3. YAMHILL RIVER
4. WILLAMETTE RIVER



WATERSHEDS

COME IN ALL SIZES

1. MAC LIBRARY
2. COZINE CREEK
3. YAMHILL RIVER
4. WILLAMETTE RIVER
5. COLUMBIA RIVER



WATERSHEDS

COME IN ALL SIZES

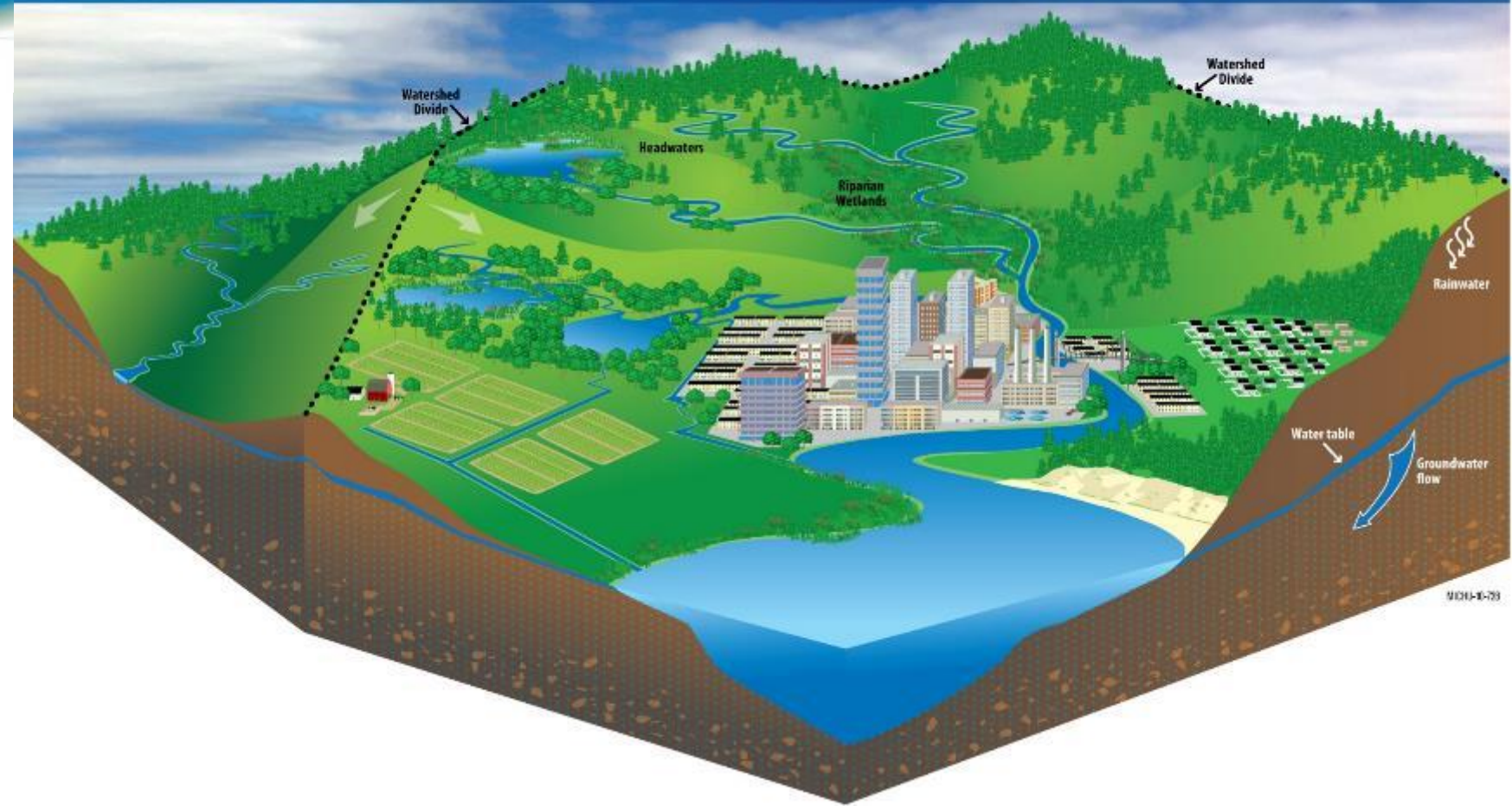
1. MAC LIBRARY
2. COZINE CREEK
3. YAMHILL RIVER
4. WILLAMETTE RIVER
5. COLUMBIA RIVER
6. PACIFIC OCEAN
(NORTH AMERICAN)



WATERSHEDS INCLUDE ALL OF THE BIOLOGIC
PHYSICAL, SOCIAL, ECONOMIC & POLITICA
ASPECTS OF THE LANDSCAPES THEY DRAIN



HOW WATERSHEDS WORK



PEOPLE
PLANTS
ANIMALS
AIR
WATER
CITIES
FARMS
INDUSTRIES
& EVERYTHING ELSE
ACROSS THE LAND

WHAT ARE WATERSHED COUNCILS?



SINCE 1997, COMPETITIVE STATE GRANT PROGRAM FUNDS BASIC OPERATIONS & SOME PROJECTS OF GRASS-ROOTS ORGANIZATIONS RECOGNIZED BY LOCAL GOVERNMENTS (CITY OR COUNTY), WORKING IN A DEFINED WATERSHED(S), THAT WORK TOWARD IMPLEMENTING 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. Nicola-Wickup 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.



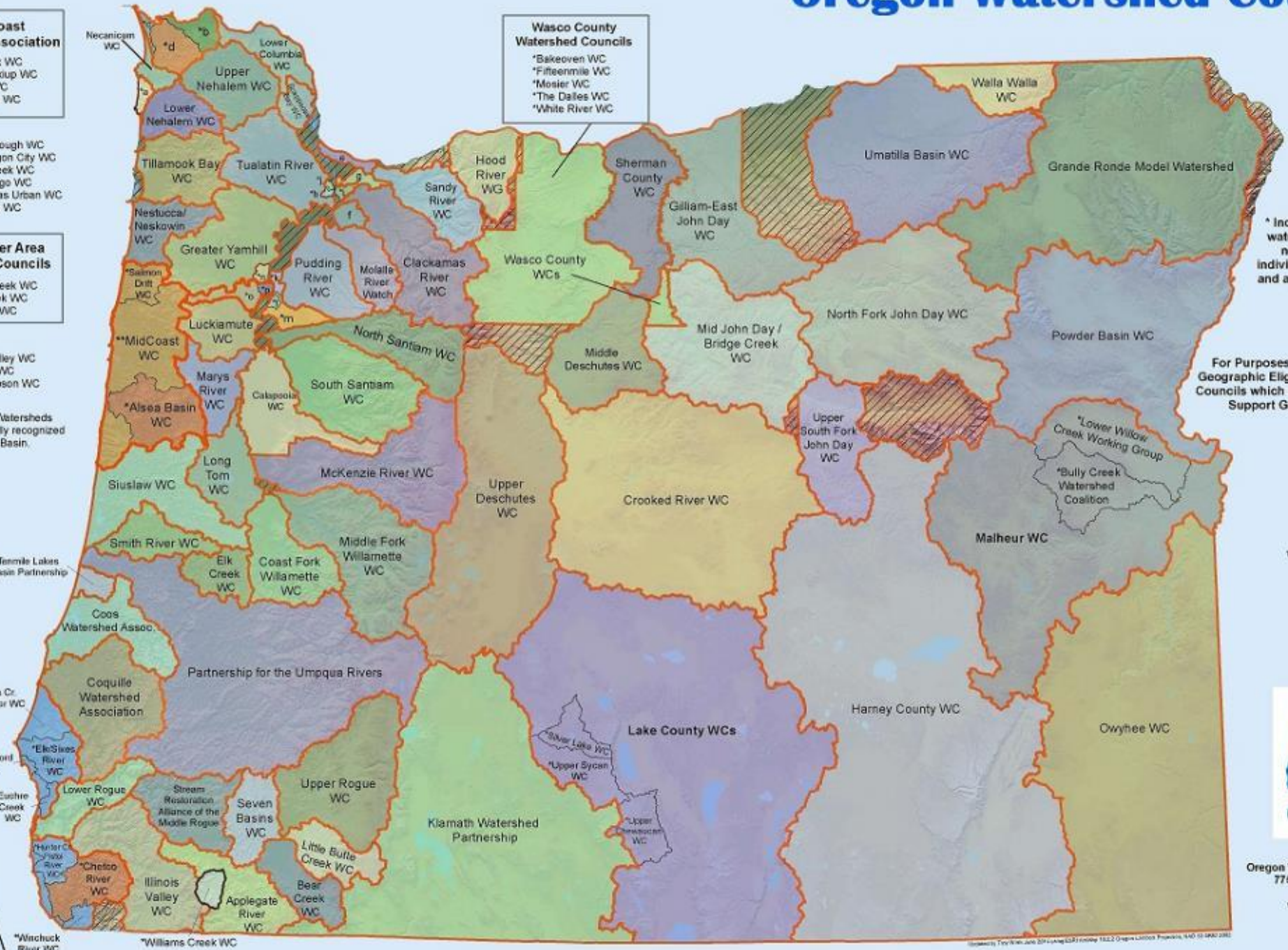
Area with no watershed council



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

South Coast Watersheds Council

The South Coast Watersheds Council is also locally recognized for the Chetso Basin.



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Oregon Watershed Councils

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Salem Keizer Area Watershed Councils

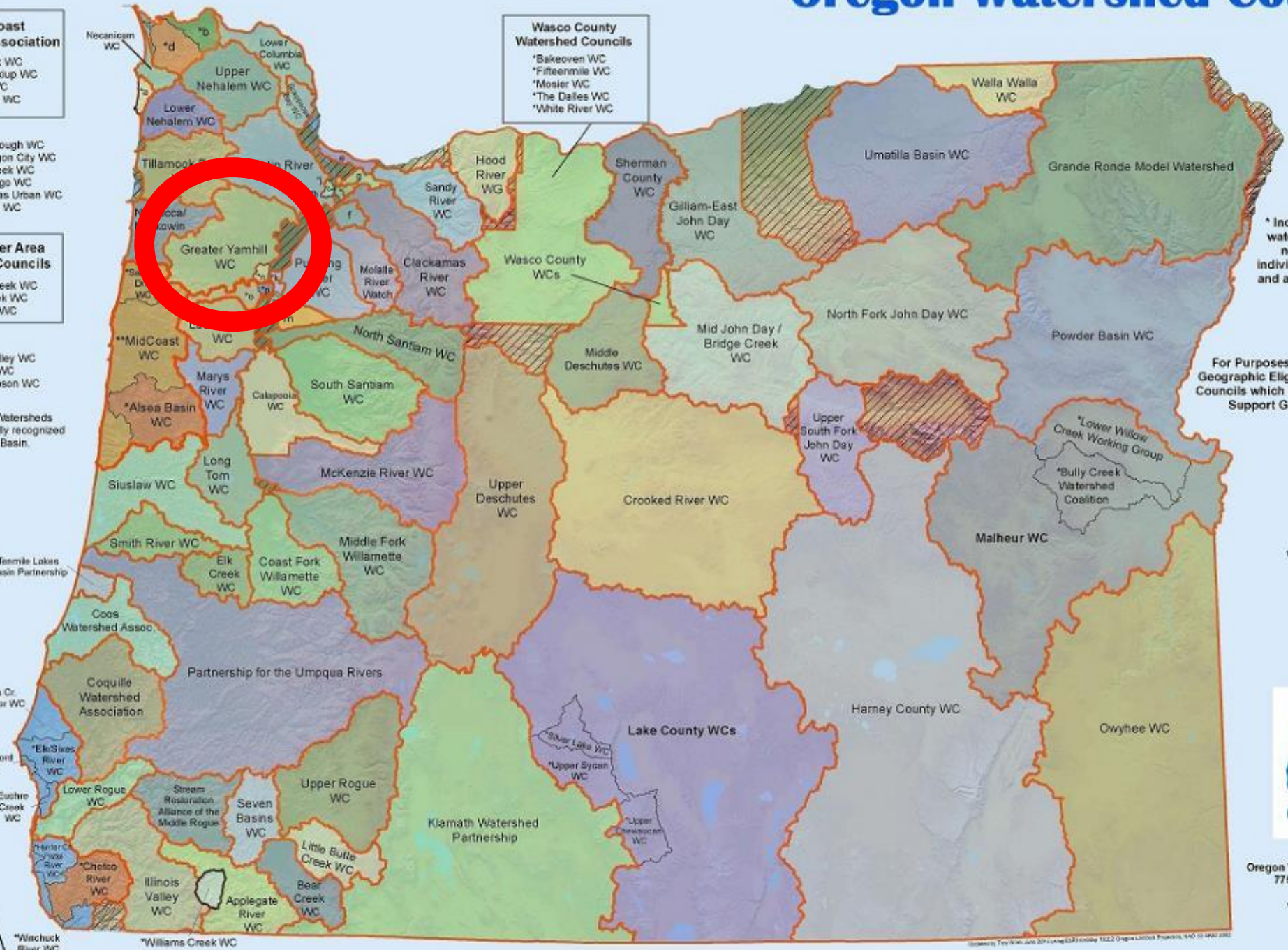
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Oregon
Department
of Agriculture



State of Oregon
Department of
Environmental
Quality



• **FEDERAL FUNDING PROGRAMS**

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

• **STATE FUNDING PROGRAMS**

- 7% OF OREGON LOTTERY REVENUE
- ODA – WATER QUALITY
- DEQ – WATER QUALITY
- OWRD – WATER QUAL. & QUANT.
- ODFW – FISH & WILDLIFE

**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

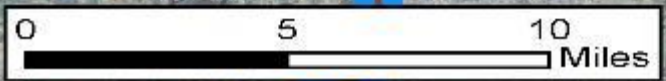
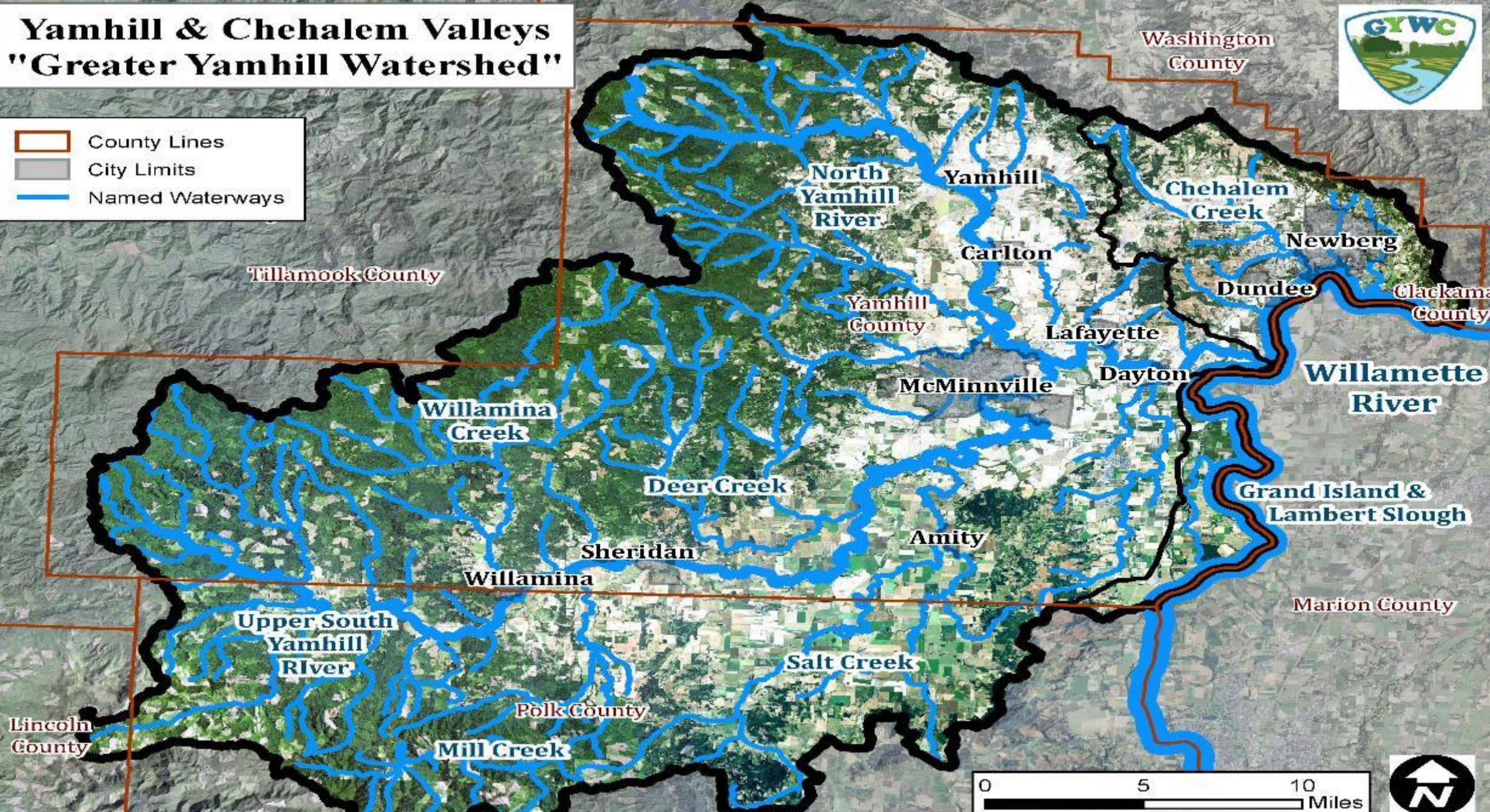
CHEHALEM VALLEY

**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

Chehalem Creek

Carlton

Yamhill County

Lafayette

McMinnville

Dayton

Willamina Creek

Deer Creek

Sheridan

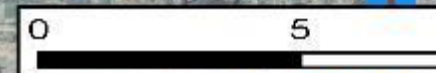
Amity

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)

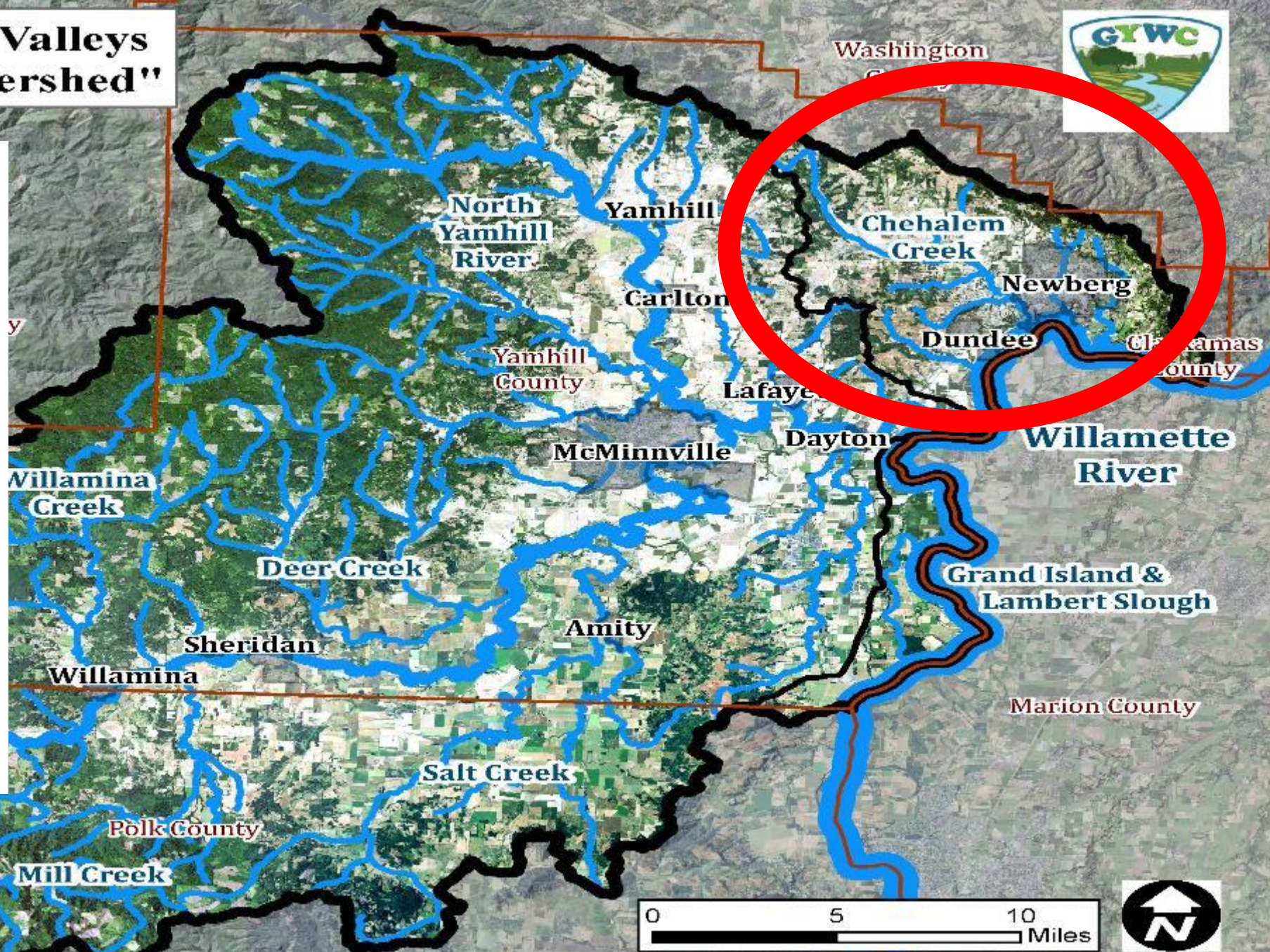
Yamhill & Chehalem Valleys "Greater Yamhill Watershed"



CHEHALEM VALLEY

= 1 SUB-BASIN W/
SEVERAL CREEKS

- CHEHALEM CREEK
- HESS CREEK
- SPRINGBROOK
- HARVEY CREEK

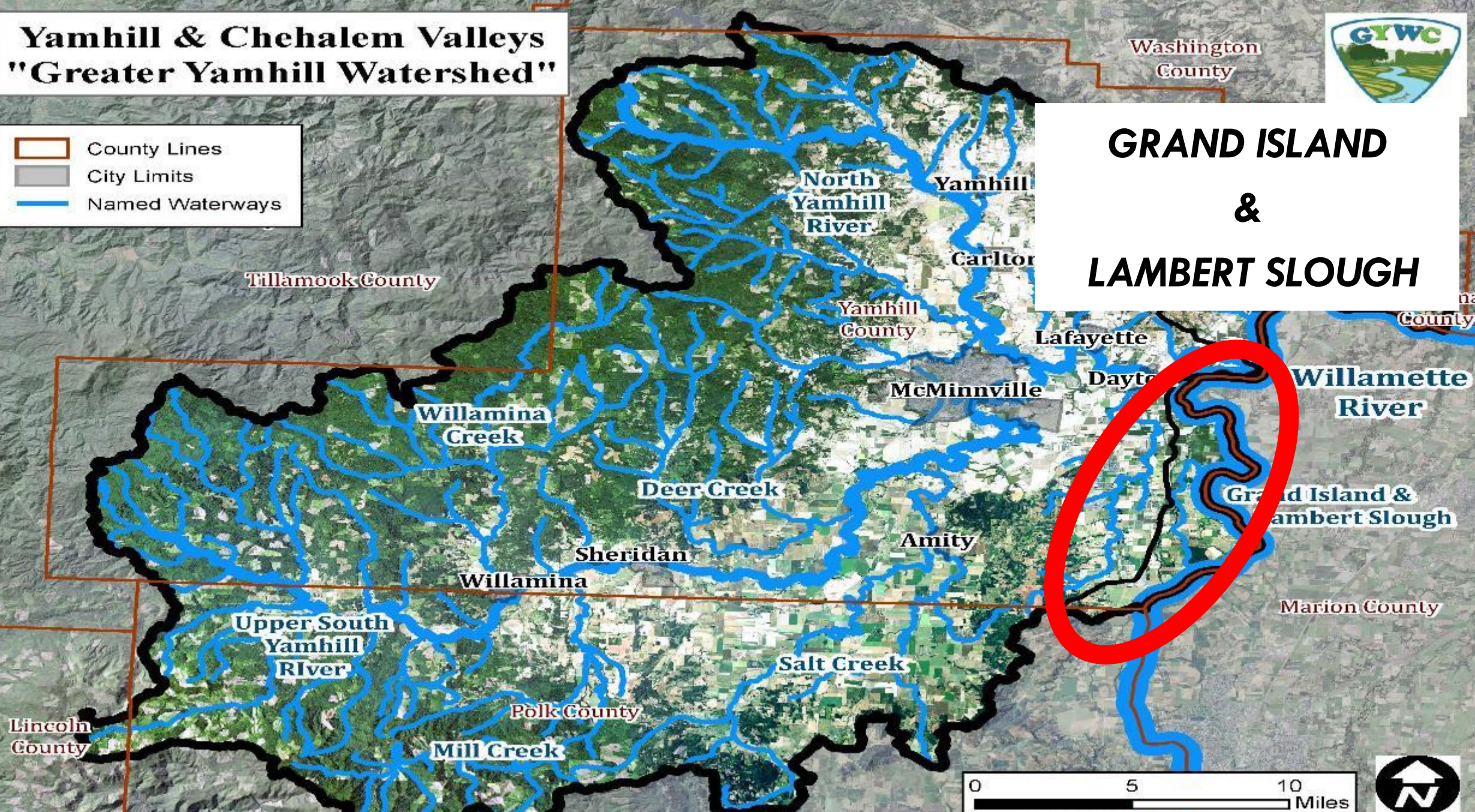


Yamhill & Chehalem Valleys "Greater Yamhill Watershed"



- County Lines
- City Limits
- Named Waterways

**GRAND ISLAND
&
LAMBERT SLOUGH**



MAJOR LAND USES

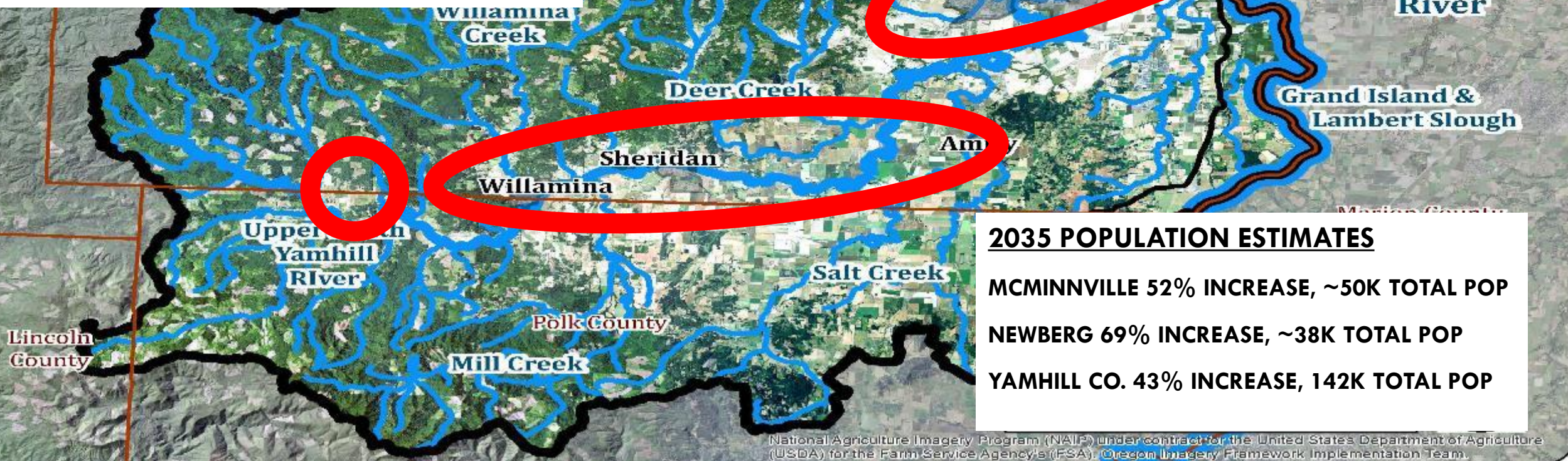
URBAN CORRIDOR

FORESTRY

AGRICULTURE

URBAN CORRIDOR

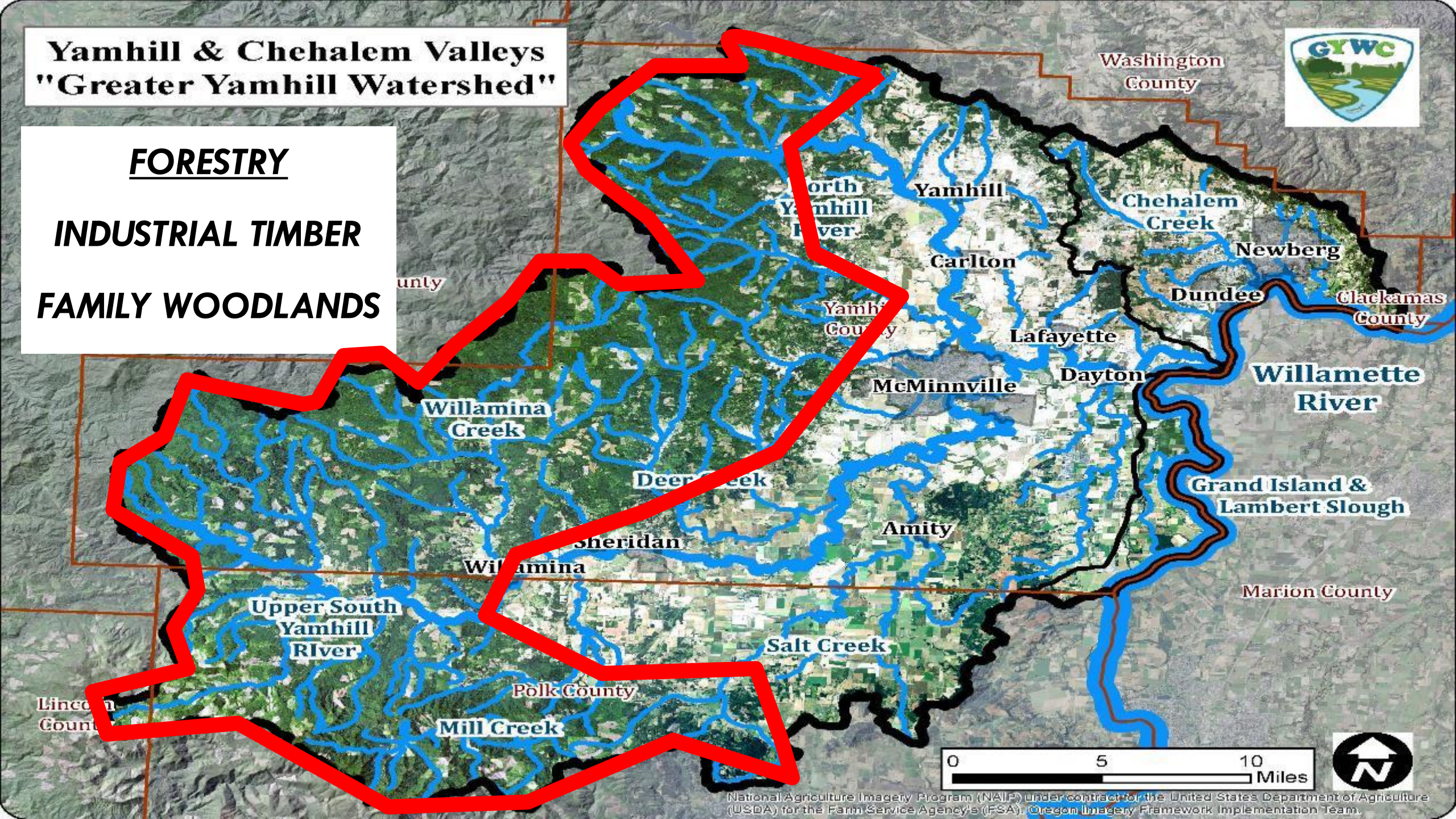
- 10 INCORPORATED CITIES
- FOLLOWS THE HIGHWAYS
- MCMINNVILLE IS COUNTY SEAT
- METRO IS EXPANDING INTO THE COUNTY



**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

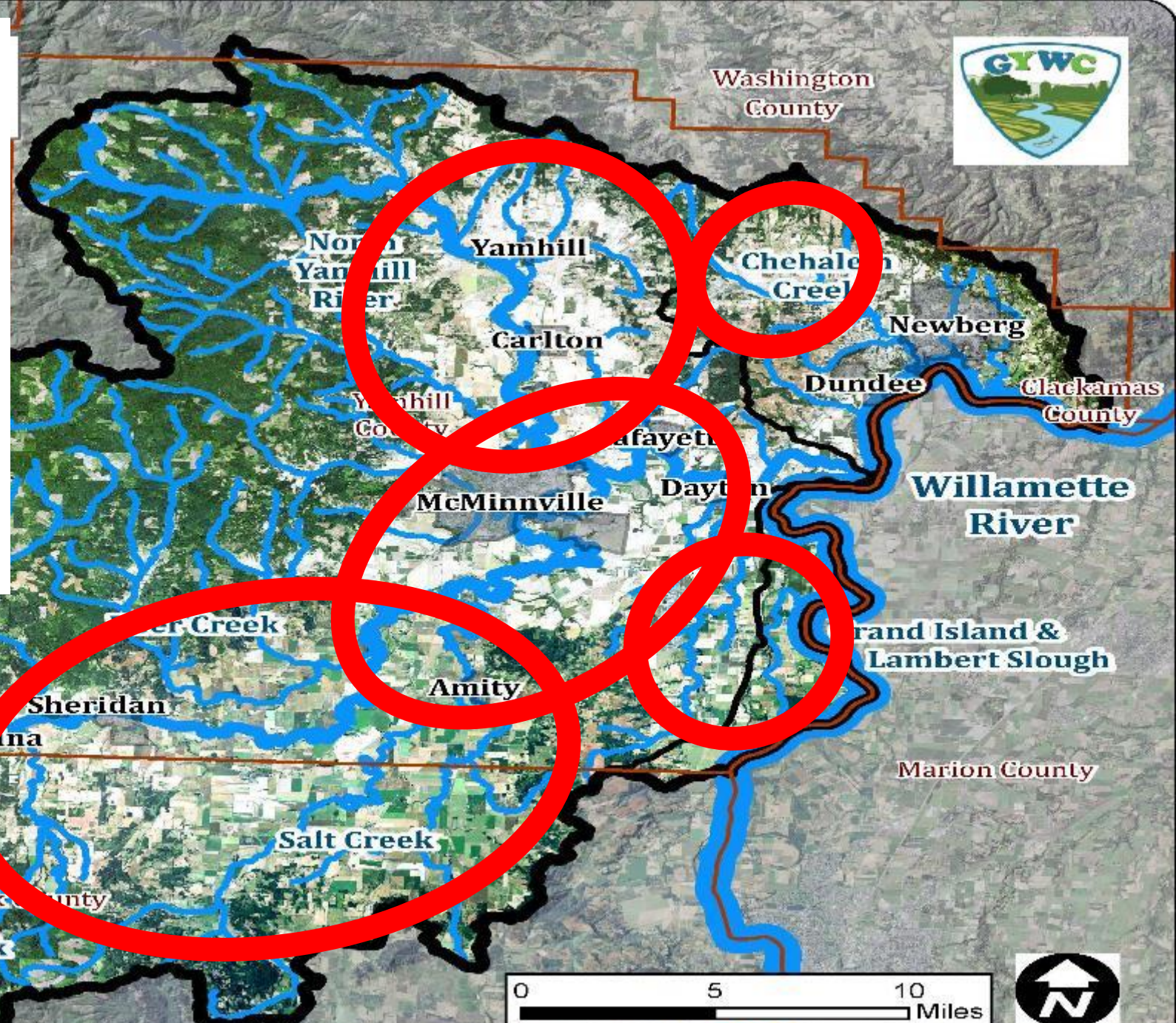
TRESSLED CROPS (VINEYARDS, CANEBERRIES, BLUEBERRIES)

ORCHARDS (HAZELNUTS ON THE RISE)

HAY / PASTURE / RANCHES

NURSERIES (POTTED & BAREROOT)

& SOME FRUITS AND VEGETABLES



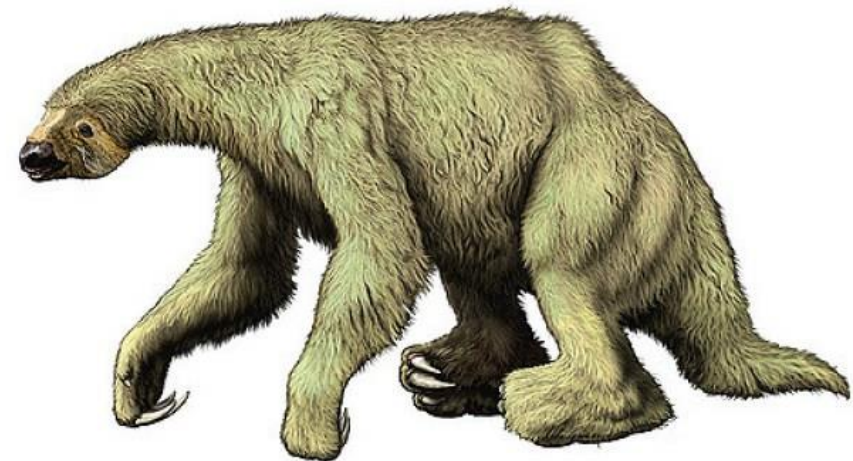
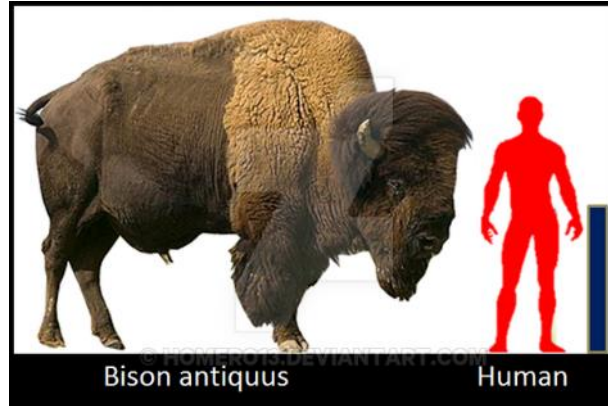
MISSOULA /
BRETZ FLOODS

THANK YOU
WASHINGTON,
& IDAHO, FOR
YOUR
FERTILE SOILS!



15,000 Years Ago (13,000 BC)

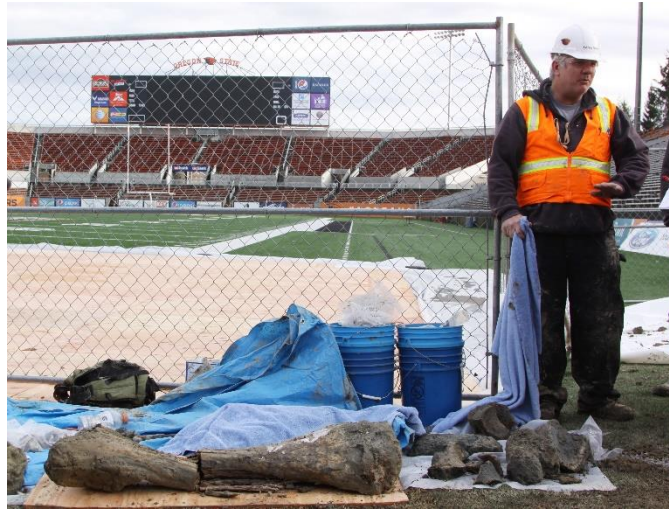
ICE AGE



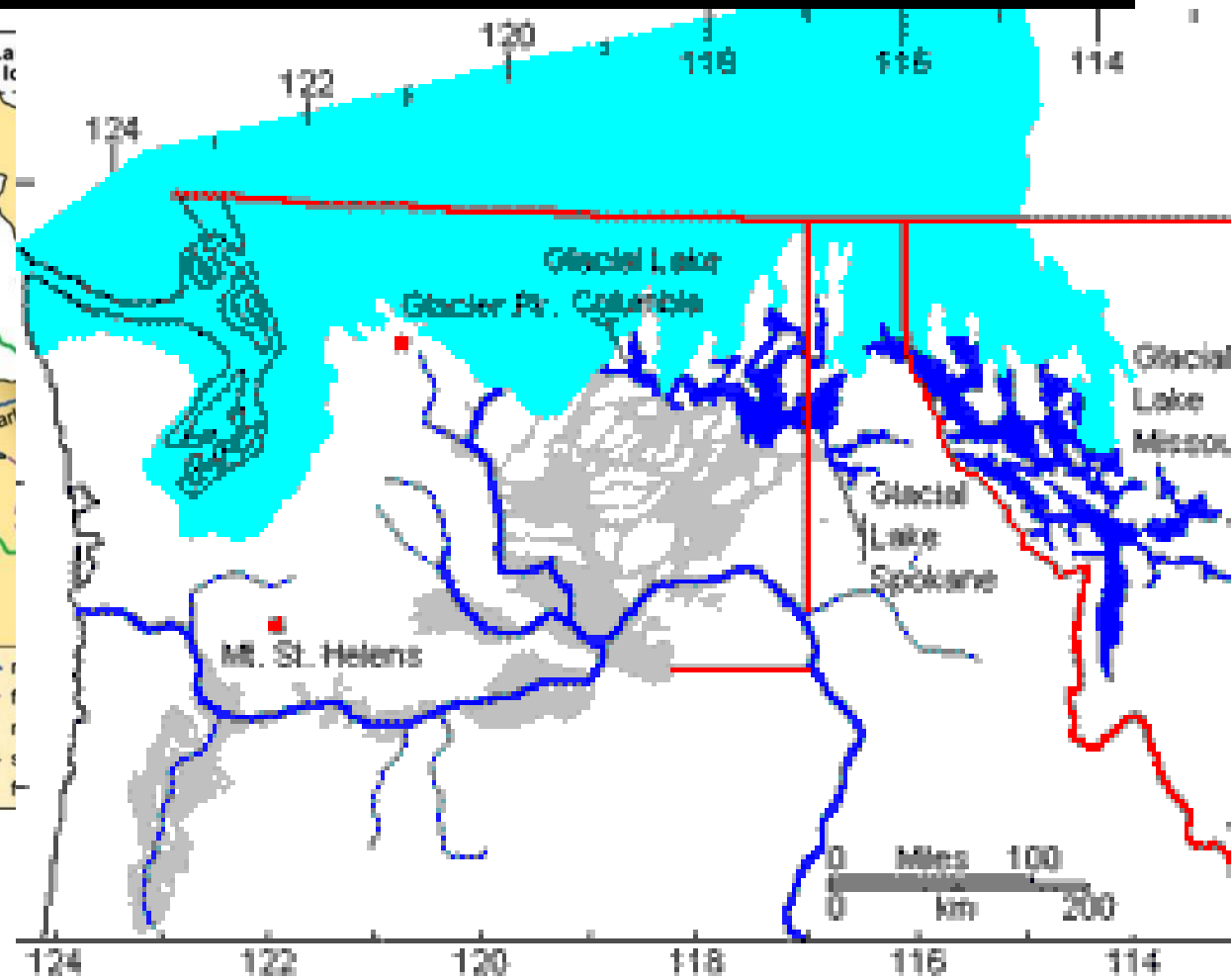
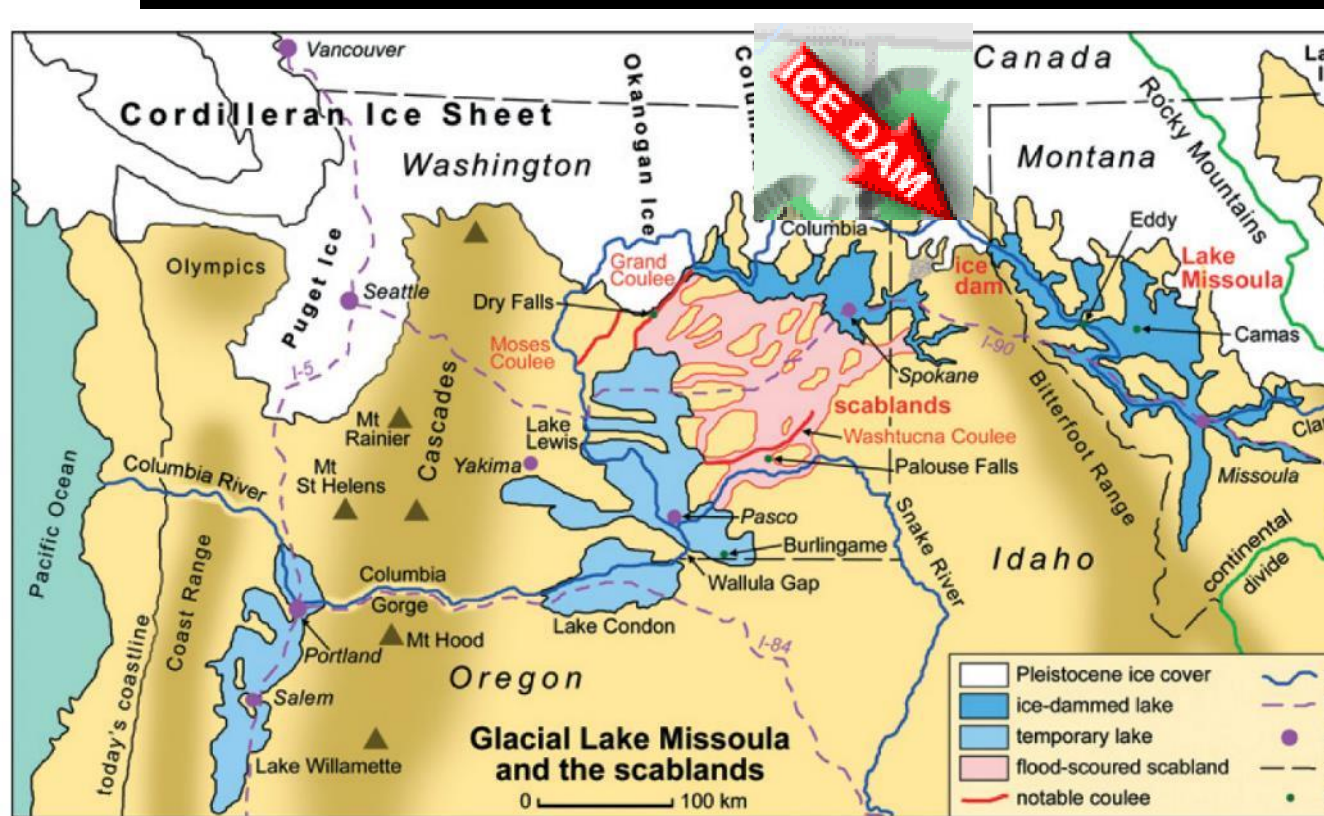
15,000 Years Ago

(13,000 BC)

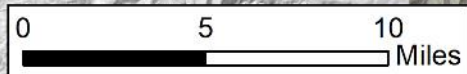
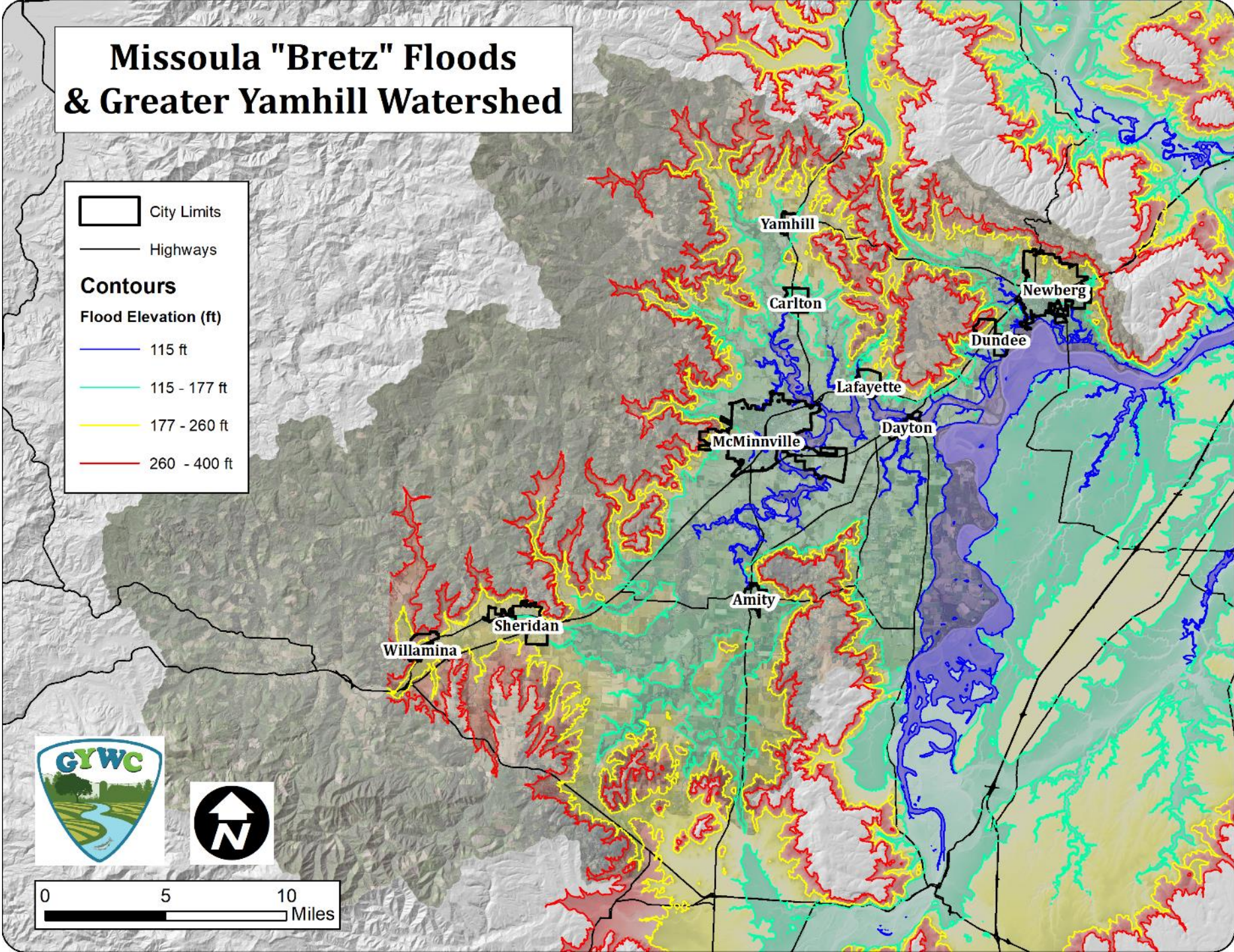
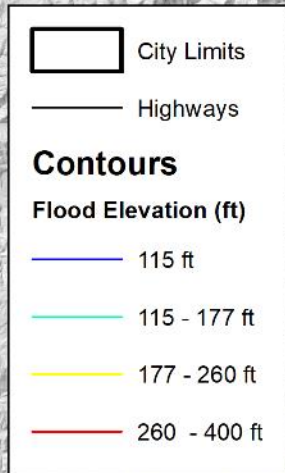
ICE
AGE



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.

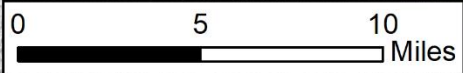
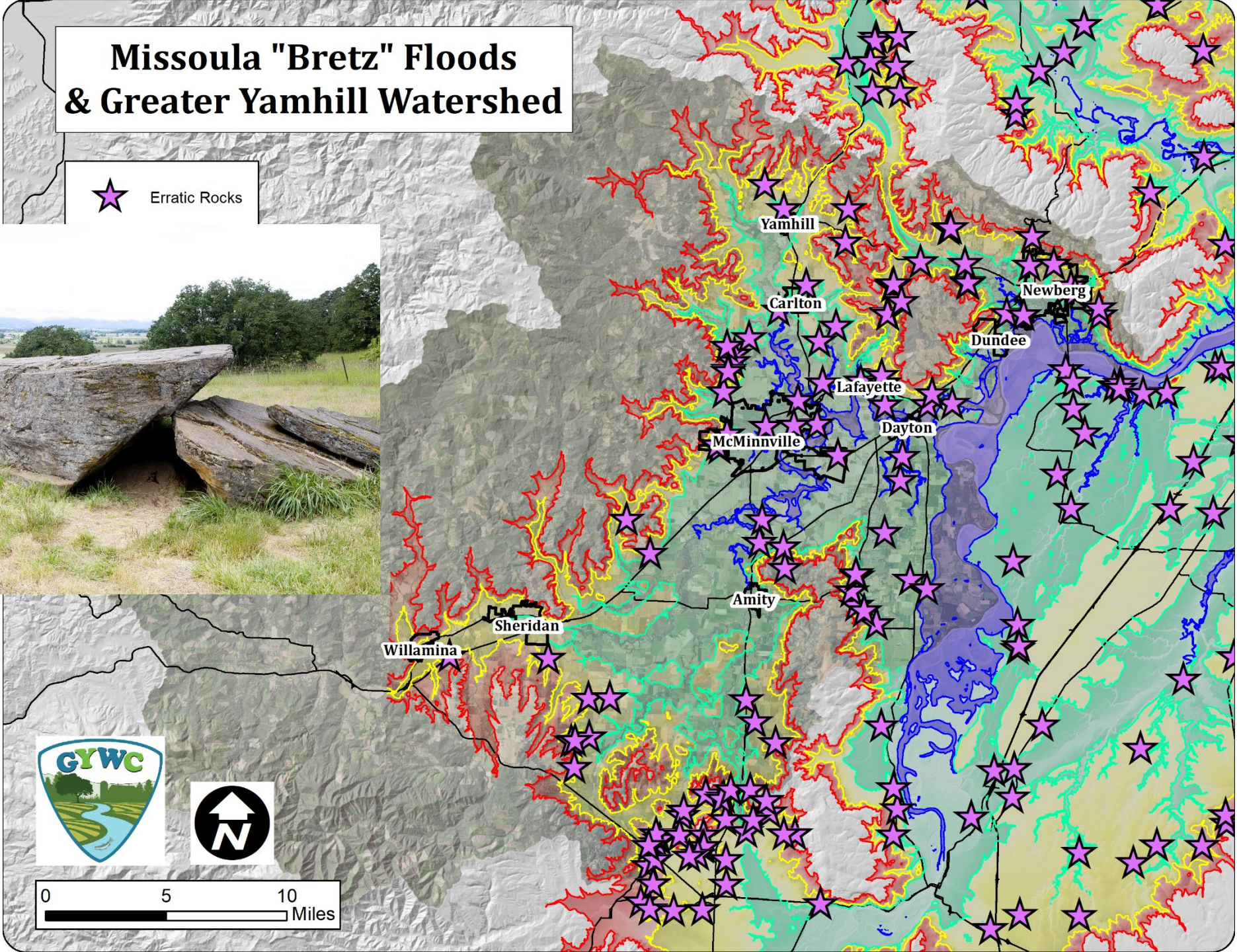
At Least 20 Floods
up to 177 ft Elev.

At Least 10 Floods
up to 260 ft Elev.

Biggest Flood
up to 400 ft Elev.

Missoula "Bretz" Floods & Greater Yamhill Watershed

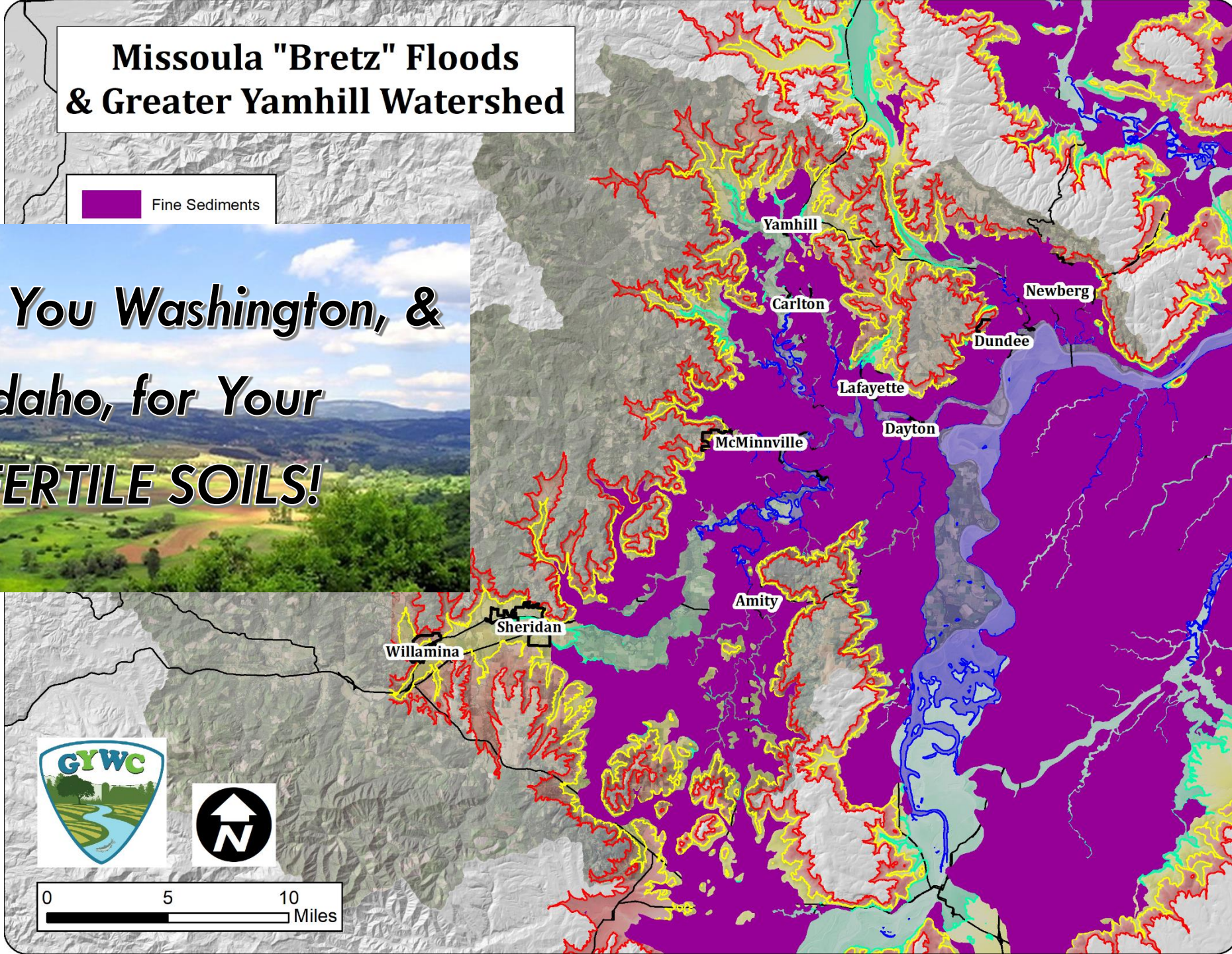
★ Erratic Rocks



Missoula "Bretz" Floods & Greater Yamhill Watershed

 Fine Sediments

*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

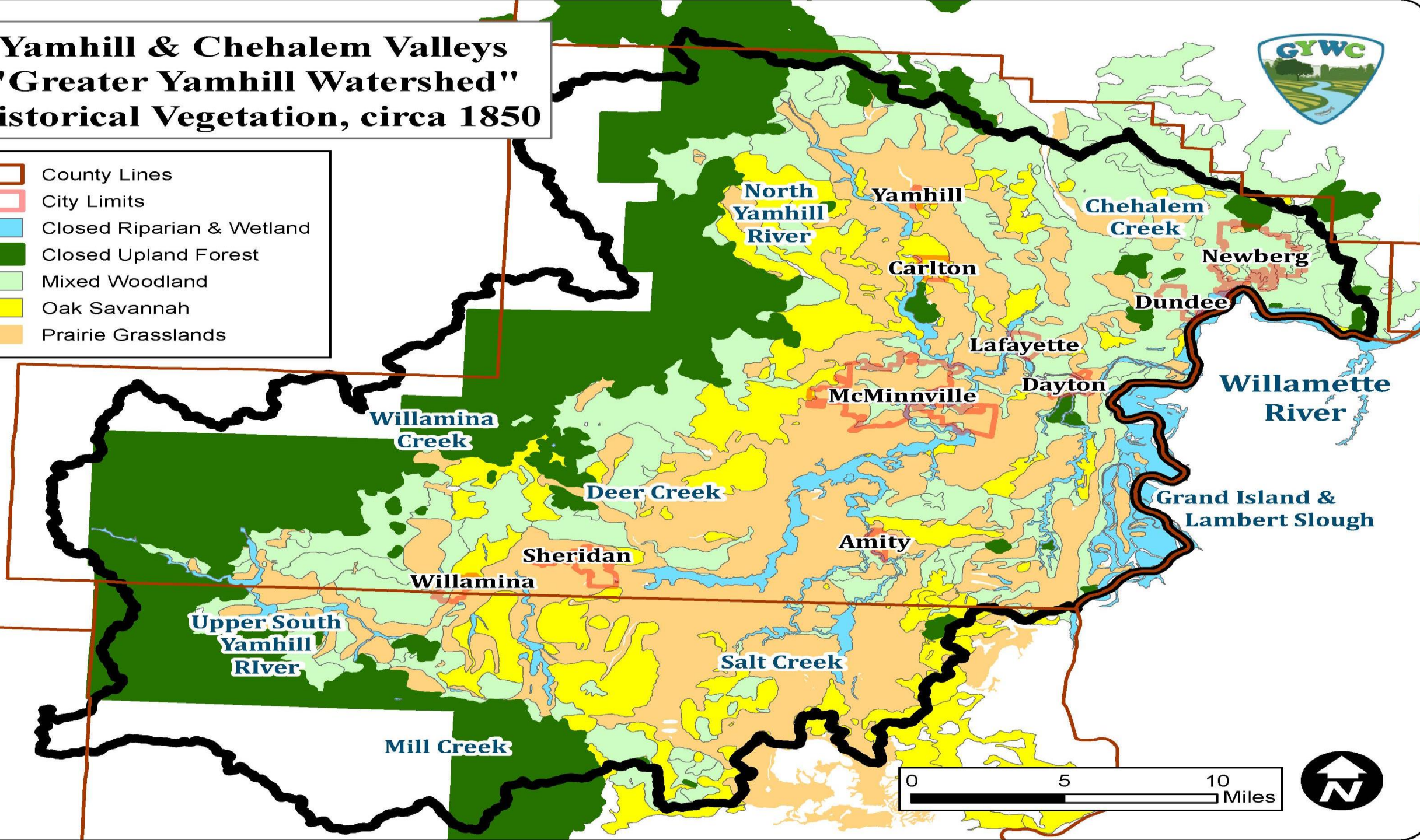
Firewood, drums, structures, medicines



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



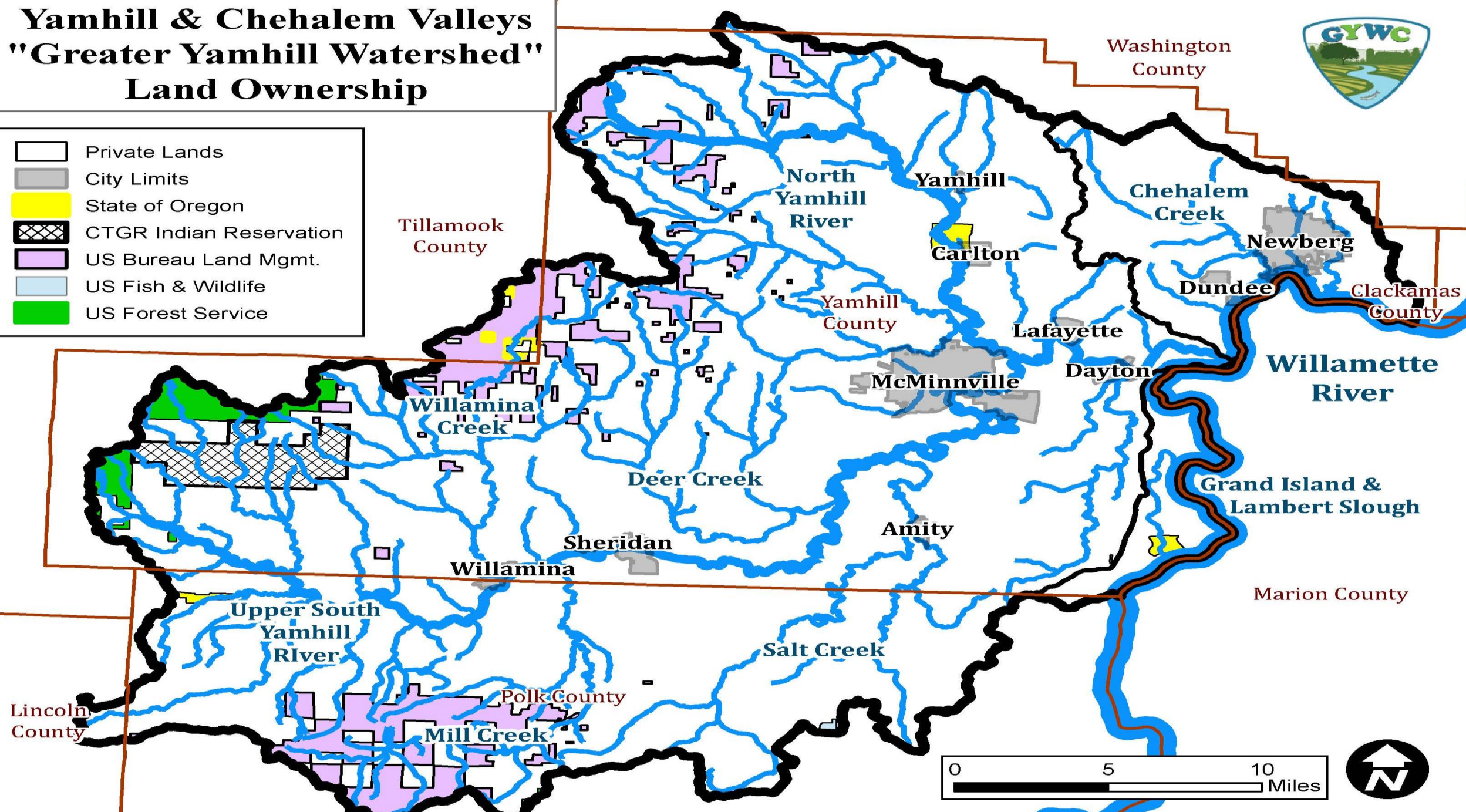
Illustration by S. S. & D. D. for J. M. Morse, Portland, Ore.

LAND OWNERSHIP

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



PRIORITY HABITATS & WILDLIFE

OAK & PRAIRIE

WATERWAYS & FLOODPLAINS

OAK SAVANNA & PRAIRIE GRASSLANDS

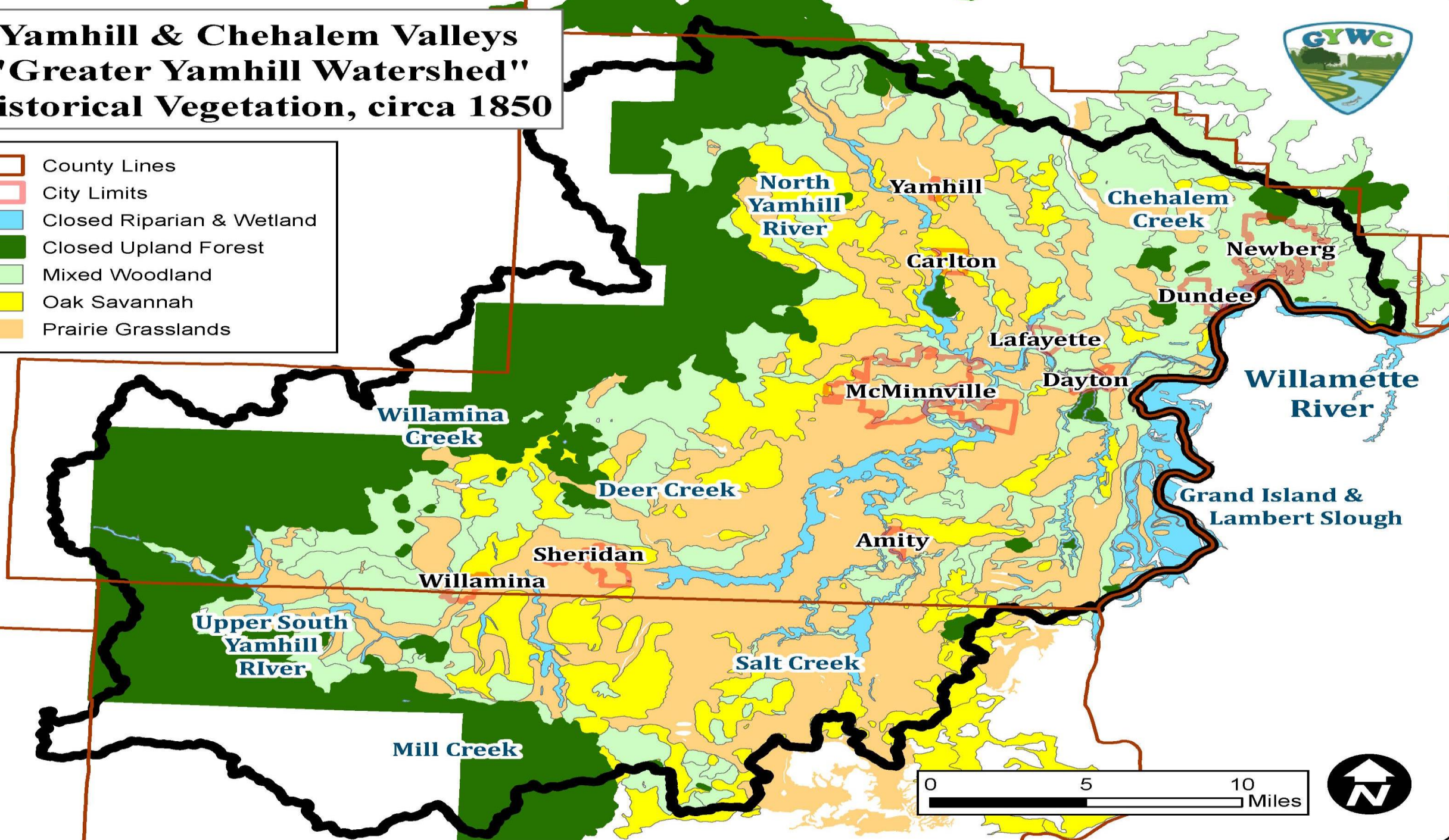
- WILLAMETTE VALLEY HISTORICALLY 1,000,000 ACRES OF OAK/PRAIRIE
- GREATER YAMHILL WATERSHED HISTORICALLY 30% OF TOTAL ACRES
- NOW LESS THAN 1% OF HISTORIC RANGE DUE TO SETTLEMENT AND DEVELOPMENT
- ENDANGERED FENDER'S BLUE BUTTERFLY AND KINCAID'S LUPINE
 - ENDEMIC TO WILLAMETTE VALLEY
 - DISCOVERED OUTSIDE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



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



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STREAMS AND RIVERS

- YAMHILL RIVER IS THE LARGEST WEST-SIDE TRIBUTARY TO WILLAMETTE
- 360+ MILES OF SALMONID BEARING STREAMS & RIVERS (TROUT & SALMON)
- MORE THAN HALF OF STREAM MILES ARE LISTED AS POLLUTED AND MOST STREAMS LACK SUFFICIENTLY FORESTED BUFFERS FOR WATER QUALITY & / OR WATERSHED FUNCTION
- PRIMARY POLLUTANTS INCLUDE TEMPERATURE, DISSOLVED OXYGEN, BACTERIA, NUTRIENTS, HEAVY METALS, AND PESTICIDES



FISH POPULATIONS & HABITAT

- SUPPORTS UP TO ~38% - 48% OF ALL NATURALIZED COHO SALMON UPSTREAM OF WILLAMETTE FALLS
- SUPPORTS UP TO ~5 - 10% OF ALL THREATENED WINTER STEELHEAD TROUT UPSTREAM OF WILLAMETTE FALLS. DEPENDENT ON CASCADE POPULATIONS
- SUPPORTS UP TO ~ 5 - 15% OF ALL PACIFIC LAMPREY UPSTREAM OF WILLAMETTE FALLS
- PROVIDES SOME REARING HABITAT FOR THREATENED SPRING CHINOOK SALMON IN LOWER REACHES OF MAIN RIVERS. DEPENDENT ON CASCADE POPULATIONS
- MOST YAMHILL BASIN STREAMS SUPPORT RESIDENT COASTAL CUTTHROAT TROUT POPULATIONS. NO SEA-RUN CUTS ACCORDING TO ODFW.
- ODFW RECENTLY FOUND OREGON CHUB POPULATIONS IN SALT CREEK SUB-BASIN IN 2017



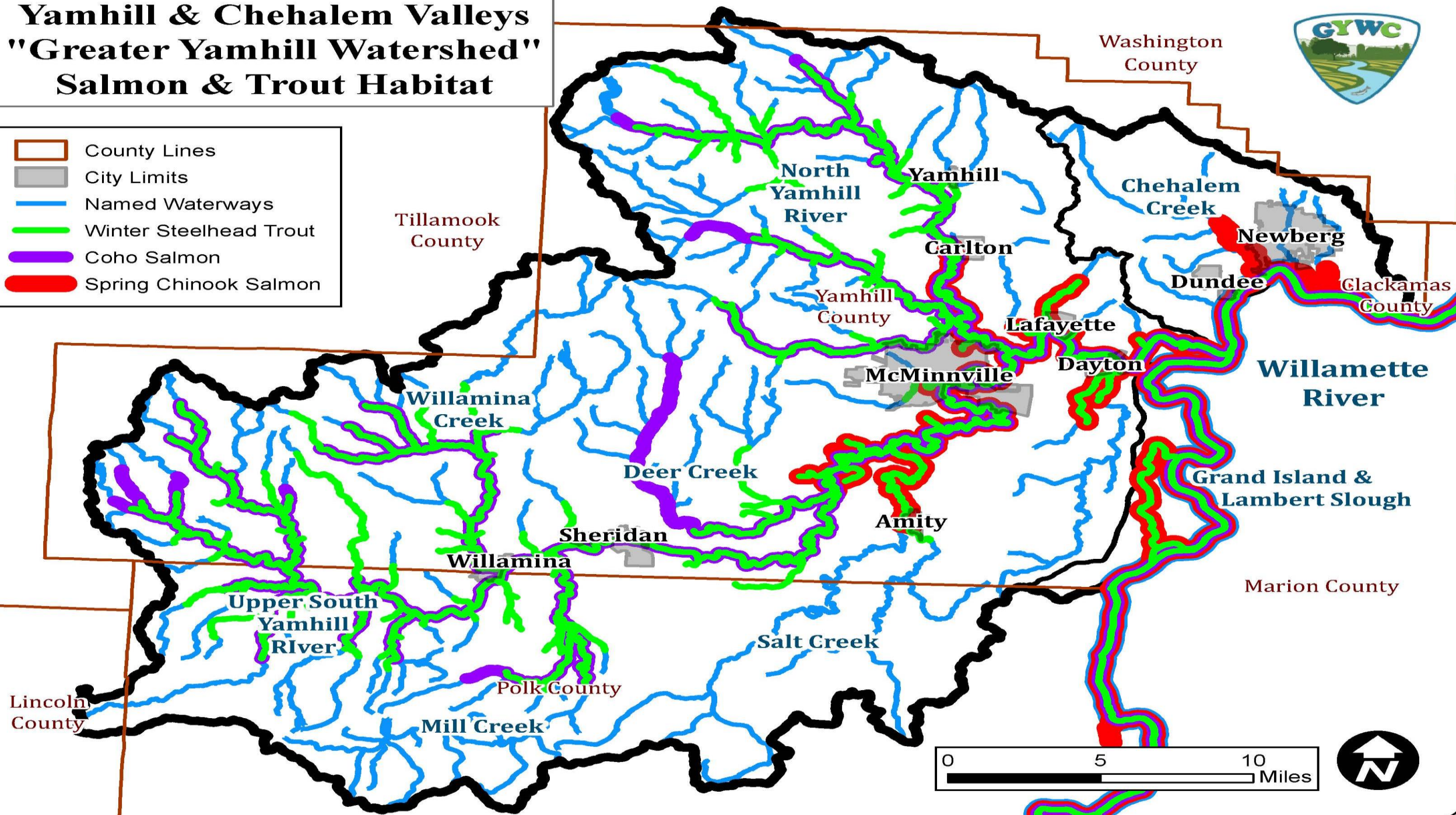
Figure 8. Agency Creek Winter Steelhead.



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



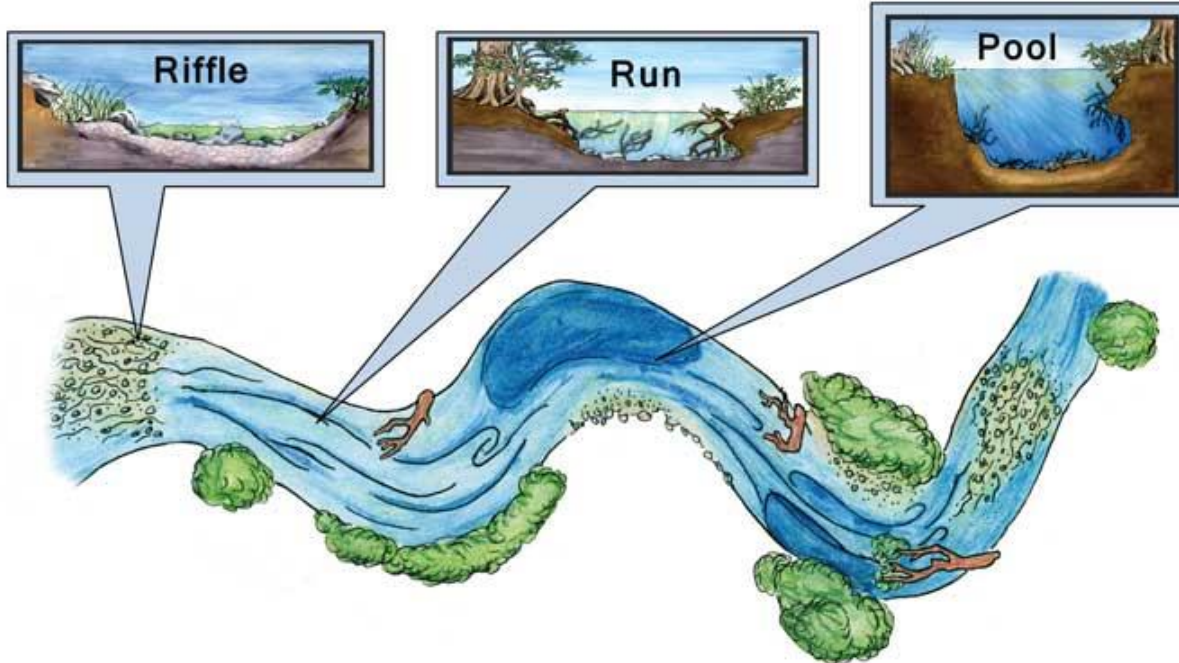
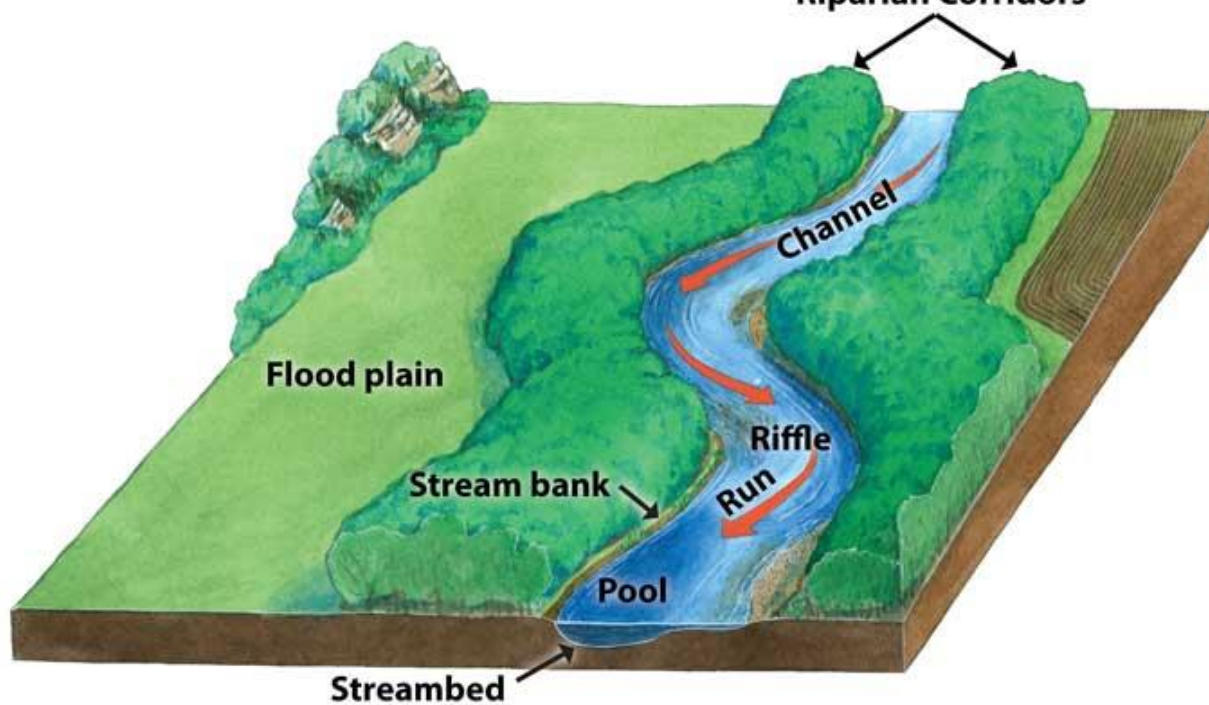
- County Lines
- City Limits
- Named Waterways
- Winter Steelhead Trout
- Coho Salmon
- Spring Chinook Salmon





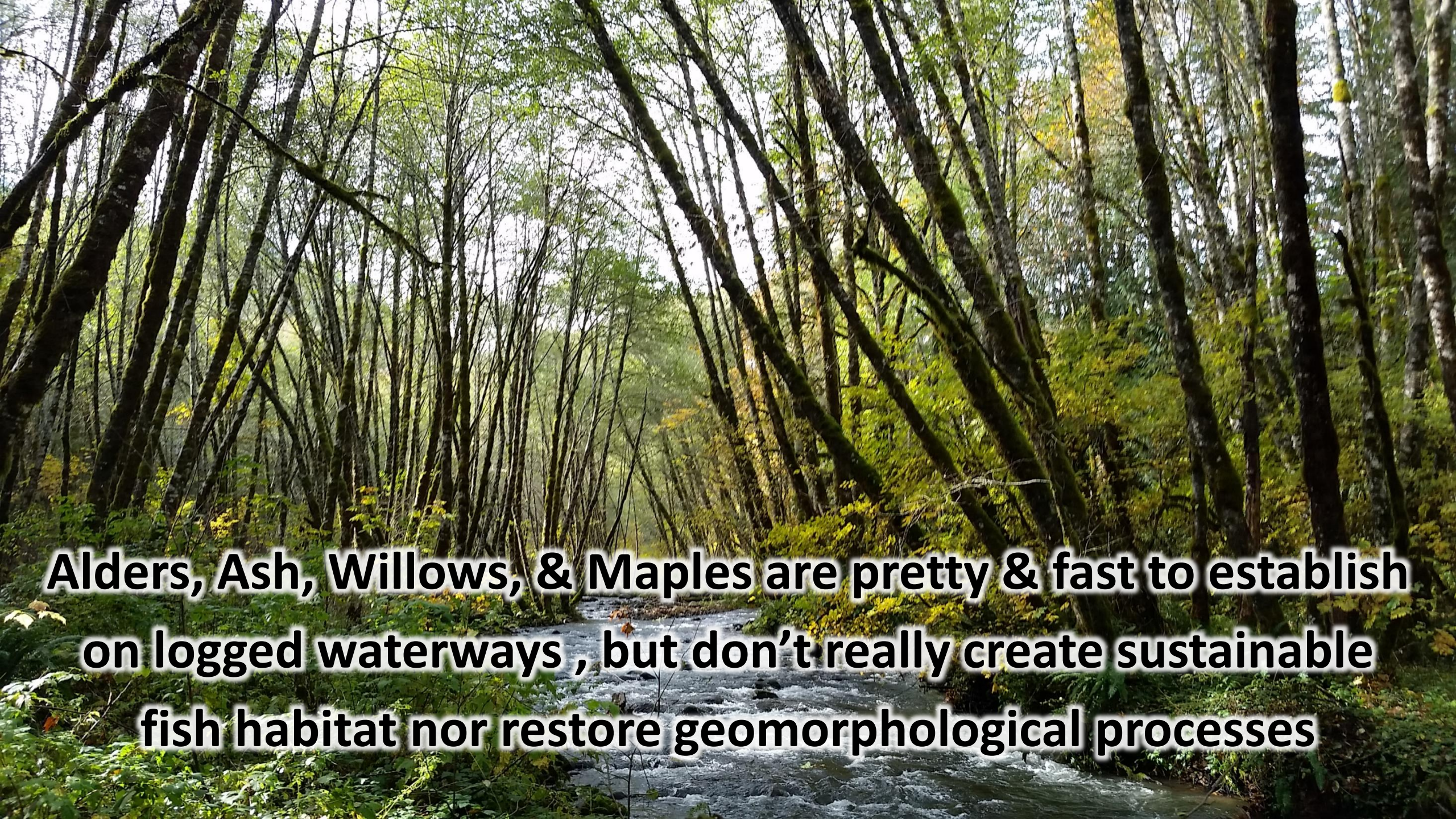
Vegetation Buffers & Filter Strips can greatly reduce pesticides entering waterways due to run-off erosion:

- **17ft buffer – Avg 50% reduction in loading**
- **33 ft – Avg 90% reduction**
- **67 ft. – Avg 97% reduction**



Healthy Waterways Have Diverse Features

- Curves & Bends
- Pools, Riffles, & Runs
- Active Floodplains
- Side-Channels
- Lots of Large Wood
- Dense Vegetation providing shade and future large wood

A photograph of a stream flowing through a forest. The water is clear and flows over rocks, creating small rapids. The surrounding trees are tall and thin, with some showing signs of autumn. The text is overlaid on the lower half of the image.

Alders, Ash, Willows, & Maples are pretty & fast to establish on logged waterways , but don't really create sustainable fish habitat nor restore geomorphological processes



**Increasing Conifer
Densities & Diversity,
Placing Large Wood in
Stream Channels, and
restoring beaver
populations can help
restore natural
hydrology,
geomorphology, and
aquatic habitat**

WATER QUALITY

TYPES OF POLLUTION

PRIORITY POLLUTANTS

POINT SOURCE POLLUTION

= SINGLE, IDENTIFIABLE SOURCE

COMMON SOURCES:

- DISCHARGE FROM WASTEWATER TREATMENT PLANTS
- DISCHARGE FROM INDUSTRIAL OPERATIONS
- COMBINED SEWER OUTFALLS



POINT SOURCE POLLUTION

= SINGLE, IDENTIFIABLE SOURCE

**STATE AND FEDERAL REGULATIONS
HAVE LARGELY ELIMINATED POINT
SOURCE POLLUTION**

REMEMBER TOM MCCALL'S 1962
EXPOSE OF THE WILLAMETTE RIVER
POLLUTION BEFORE THE 1972
CLEAN WATER ACT??

**TOM MCCALL (REPUBLICAN) BECAME
OREGON'S ENVIRONMENTAL
CHAMPION & STATE GOVERNOR
FROM 1966 - 1975**



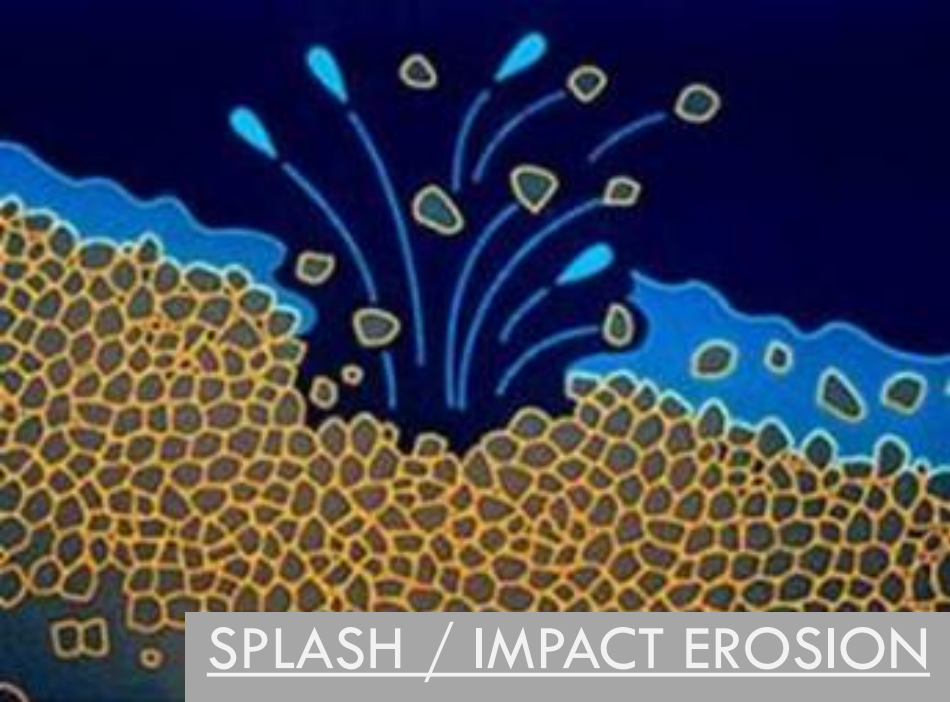
NON-POINT SOURCE POLLUTION

≡ MULTIPLE SOURCES, DIFFUSE,
LANDSCAPE SCALE

COMMON SOURCES:

- ROADS & RIGHT OF WAYS
- BARE EXPOSED UNVEGETATED GROUND, SLOPES, AND FIELDS
- UNSHADED, UNVEGETATED WATER-SIDES
- LIVESTOCK (EVEN SMALL OPERATIONS)
- SEPTIC SYSTEMS
- DUMPING TRASH
- FLUSHING PHARMACEUTICALS





RUN-OFF
BARE
SOILS,
TILLED
SOILS,
AREAS
LACKING
ROOT
STRUCTURE
&
VEGETATION
COVER

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

BIOCRITERIA

CHLOROPHYLL A

CHLORPYRIFOS (INSECTICIDE)

COPPER

DISSOLVED OXYGEN

E. COLI

FECAL COLIFORM

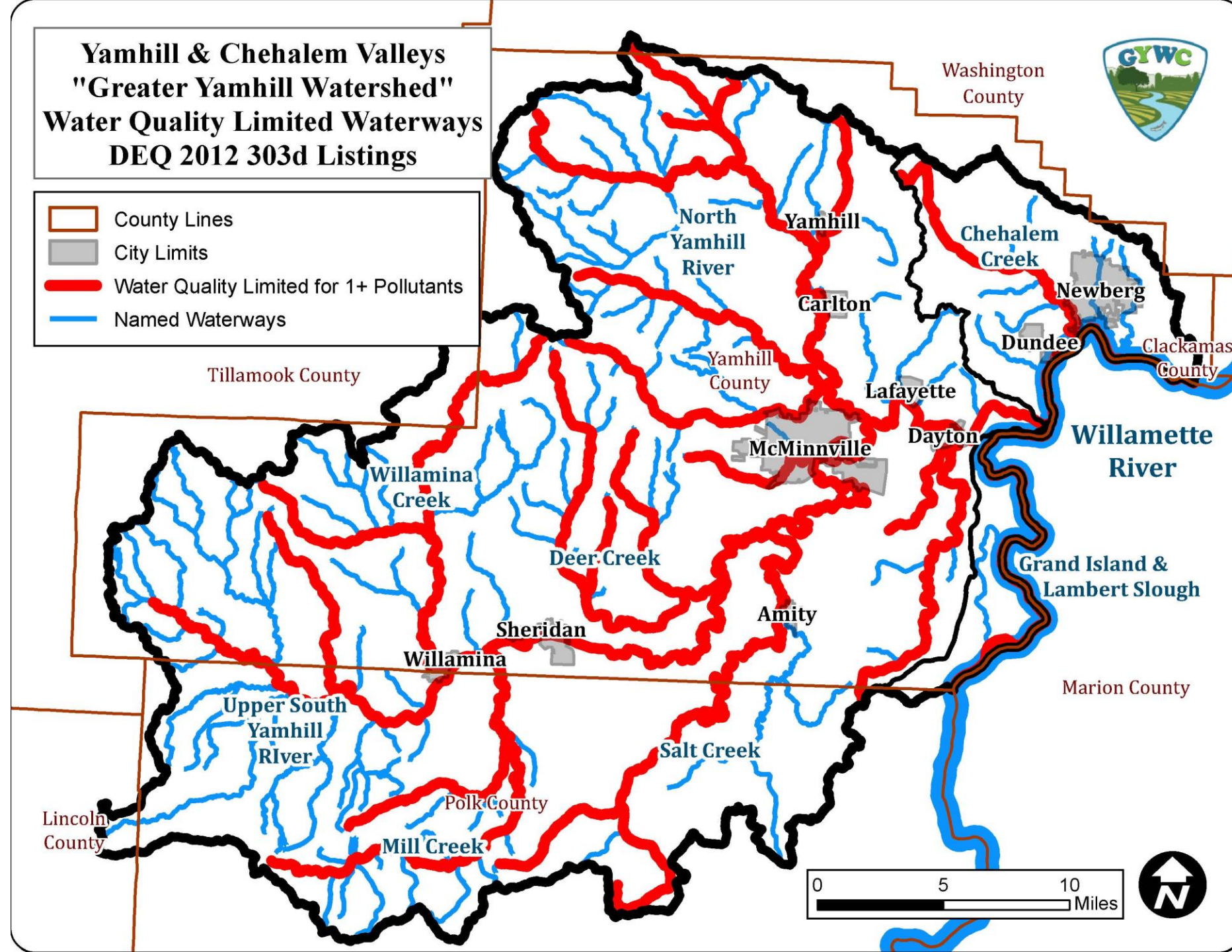
IRON

LEAD

MERCURY

TEMPERATURE

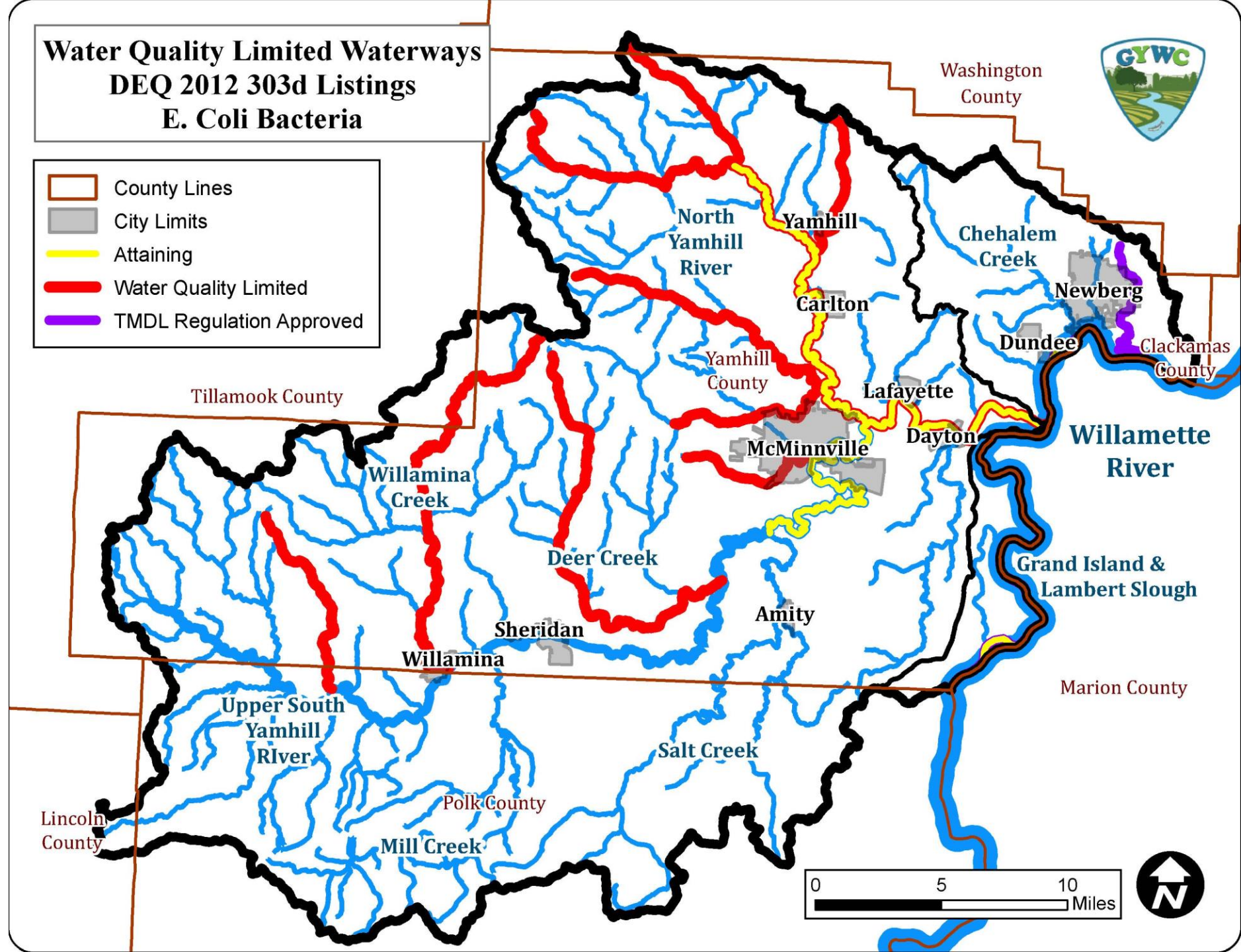
TURBIDITY



E. COLI BACTERIA

COMMON SOURCES

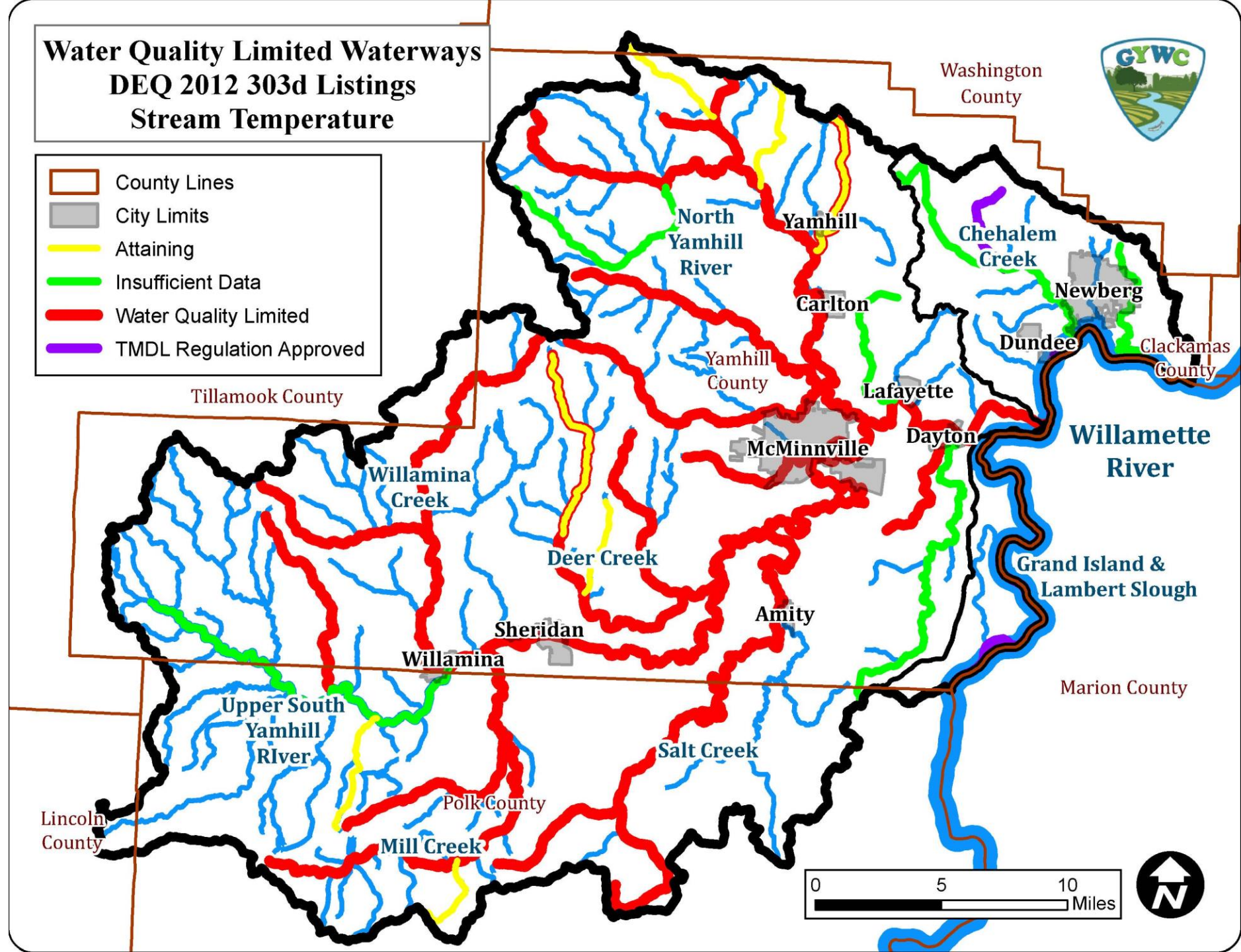
- LIVESTOCK
- MANURE PILES
- WILDLIFE (GEESE)
- PET WASTE
- SEPTIC SYSTEMS
- SEWER PIPES



STREAM TEMPERATURE

COMMON SOURCES

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



Yamhill Ag WQ Management Area

Water Quality Status and Trend

Temperature, E. Coli, pH, and Dissolved Oxygen

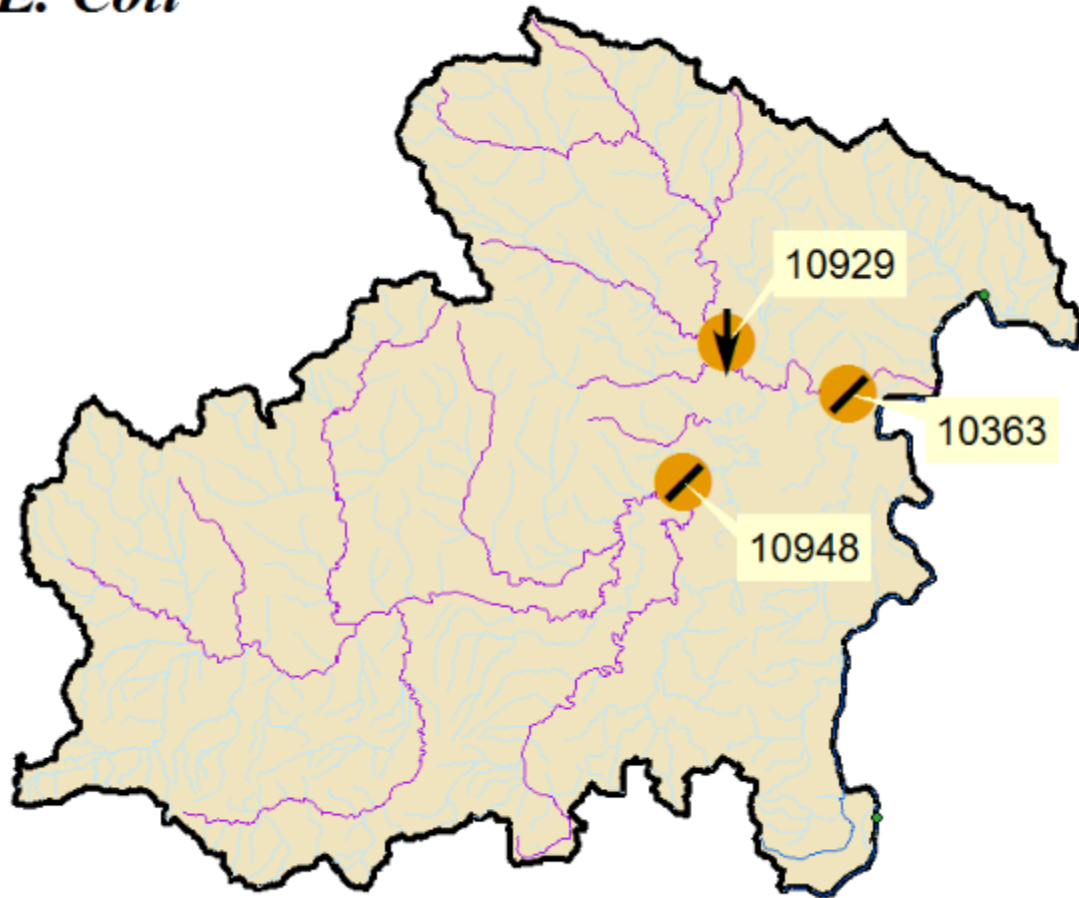
Water Quality Status

- Meeting
- Not meeting
- Insufficient Data

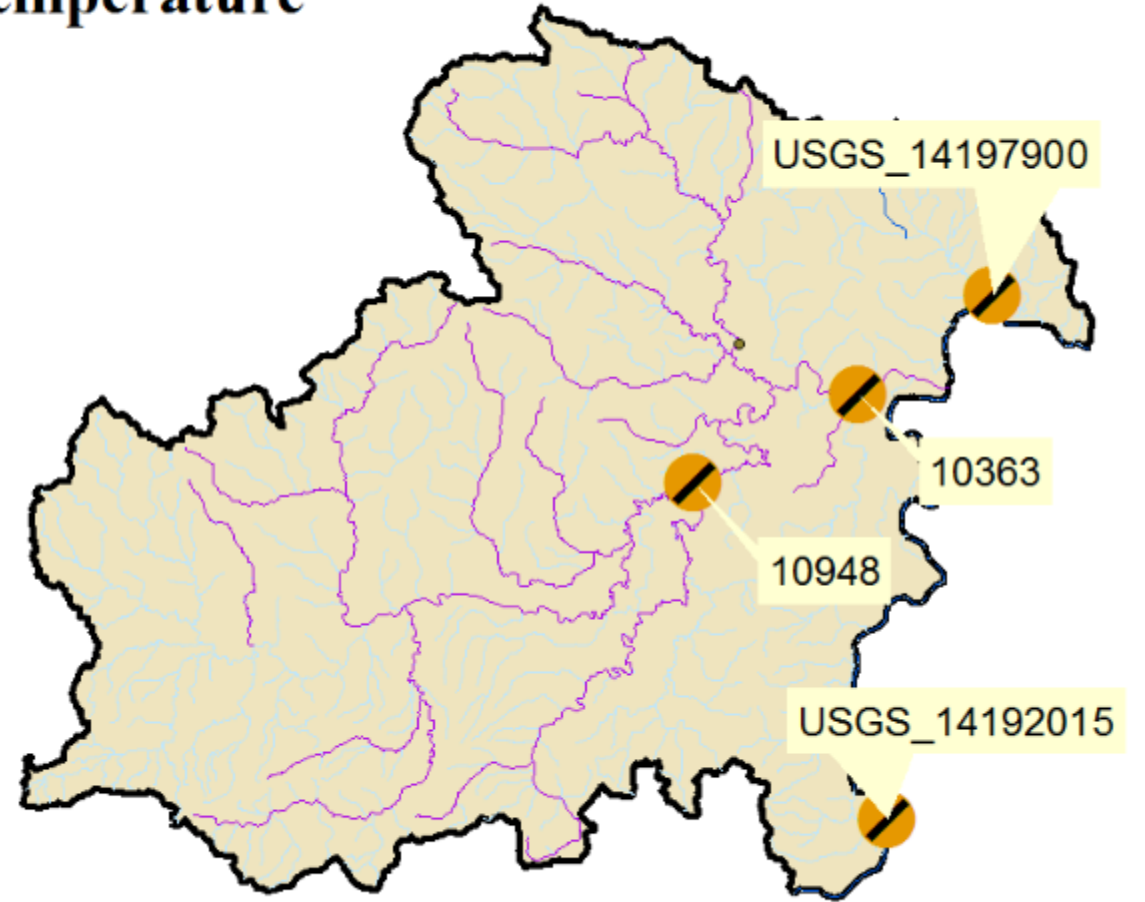
Trend

- Improving
- Degrading
- Steady
- No Trend

E. Coli



Temperature



Yamhill Ag WQ Management Area

Water Quality Status and Trend

Temperature, E. Coli, pH, and Dissolved Oxygen

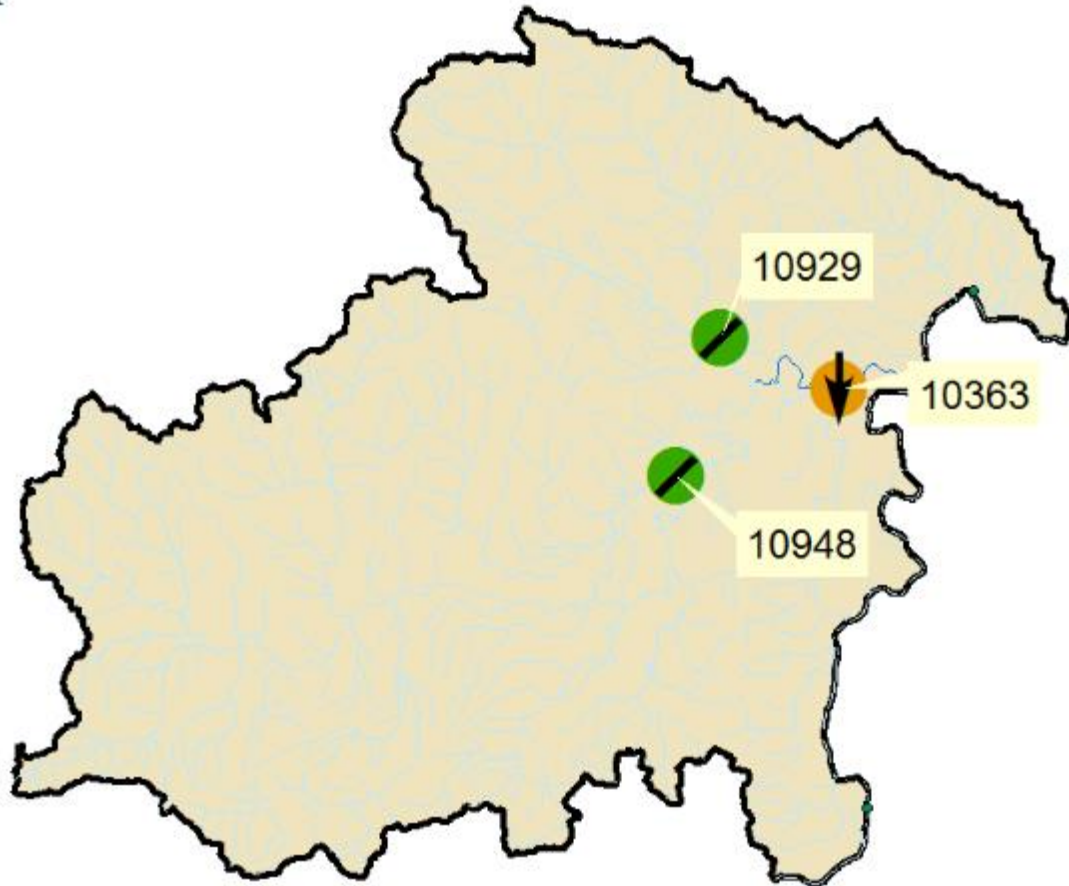
Water Quality Status

- Meeting
- Not meeting
- Insufficient Data

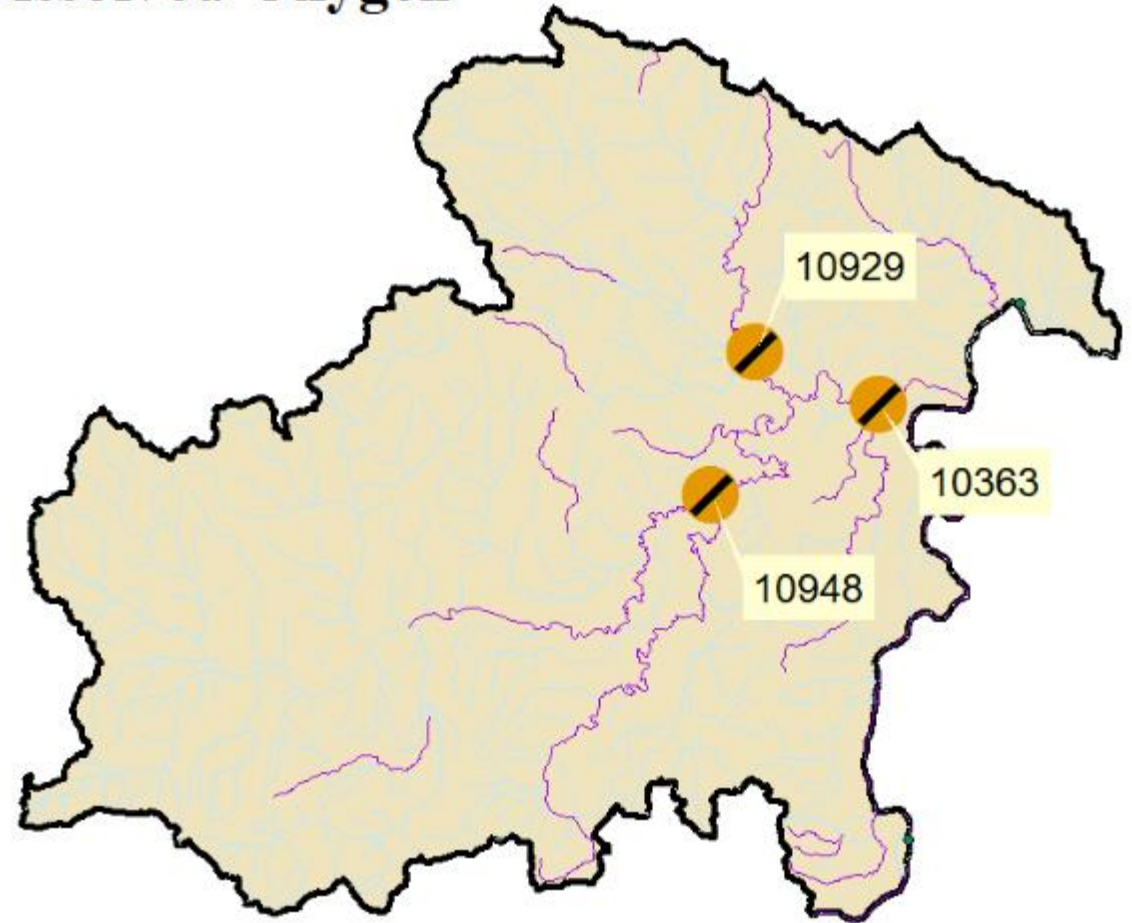
Trend

- Improving
- Degrading
- Steady
- No Trend

pH



Dissolved Oxygen



PESTICIDE MONITORING

10-SITES BASIN WIDE

(2007 – 2009)

COZINE CREEK

FOCUS AREA

(2010 – PRESENT)

WEST FORK

PALMER CREEK

FOCUS AREA

(2010 – PRESENT)

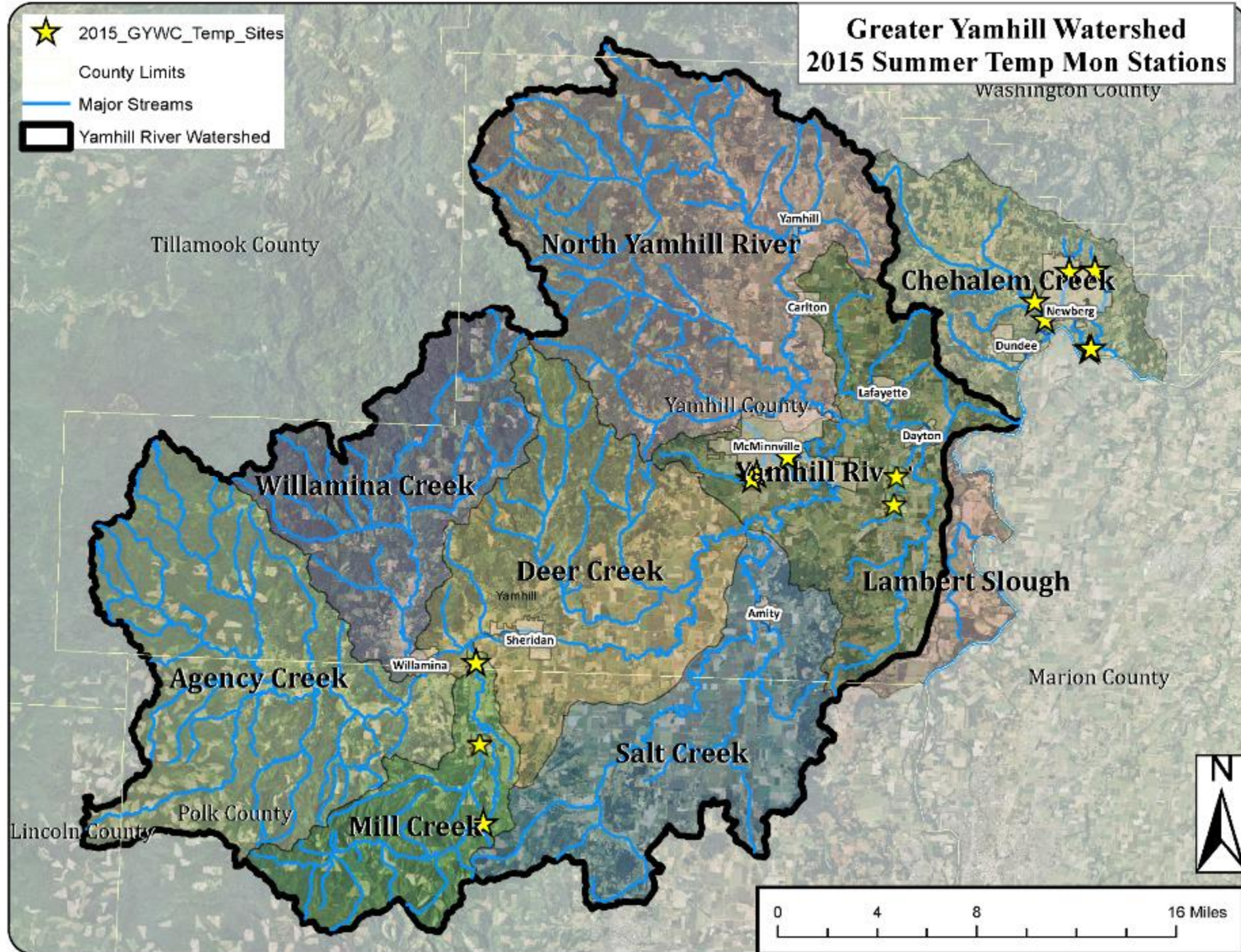


GYWC TEMPERATURE
MONITORING

30+ SITES
1995 - PRESENT

CURRENT SITES
INCLUDE

COZINE CREEK
WEST FORK PALMER CREEK
CHEHALEM, HESS, &
SPRINGBROOK CREEKS
MILL CREEK &
GOOSENECK CREEK



HOW CAN YOU SHAPE THE FUTURE?



GET EDUCATED & INFORMED!

- SEEK OUT OPPORTUNITIES FOR LEARNING AND VOLUNTEERING WITH GYWC & LOCAL PARTNERS
- SUBSCRIBE TO OUR GYWC MONTHLY E-NEWSLETTER
- ATTEND LOCAL PRESENTATIONS & WORKSHOPS
- ATTEND MONTHLY MEETINGS OF THE GYWC & LOCAL PARTNERS

GYWC MONTHLY PUBLIC BOARD MEETINGS

1ST TUESDAY OF THE MONTH

@ MCMINNVILLE PUBLIC LIBRARY CARNEGIE ROOM

6PM PIZZA & SOCIAL HALF HOUR

6:30-8:30PM BUSINESS MEETING

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

NON PROFITS & ASSOCIATIONS

1. ASSOCIATION OF NW STEELHEADERS
NEWBERG CHAPTER
2. DUCKS UNLIMITED
3. COLUMBIA LAND TRUST
4. GREEN BELT LAND TRUST
5. NATURE CONSERVANCY
6. GEORG FOX UNIVERSITY
7. LINFIELD COLLEGE
8. INSTITUTE FOR APPLIED ECOLOGY
9. MILLER WOODS CONSERVATION AREA
10. NATIVE PLANT SOCIETY OF OREGON
CHEAHMILL CHAPTER
10. OREGON COMMUNITY FUND
11. OUTDOOR EDUCATION ADVENTURES
12. OSU & OSU EXTENSION SERVICE
13. SALMON-SAFE INC
14. SPIRIT MOUNTAIN COMMUNITY FUND
15. YAMHILL CAPOW
16. YAMHILL PARTNERS FOR LAND & WATER
17. YAMHILL & POLK, SMALL WOODLANDS
ASSOCIATIONS
18. YAMHILL & POLK, FARM BUREAUS
19. YAMHILL WATERSHED STEWARDSHIP FUND
20. AND MANY MORE!!

CITY & COUNTY GOVERNMENTS

1. CITY OF AMITY
2. CITY OF CARLTON
3. CITY OF DAYTON
4. CITY OF DUNDEE
5. CITY OF LAFAYETTE
6. CITY OF MCMINNVILLE
7. CITY OF NEWBERG
8. CITY OF SHERIDAN
9. CITY OF WILLAMINA
10. CITY OF YAMHILL

11. POLK COUNTY

12. YAMHILL COUNTY

13. TILLAMOOK COUNTY



SPECIAL DISTRICTS

1. YAMHILL AND POLK, SOIL & WATER CONSERVATION DISTRICTS
2. PALMER CREEK IRRIGATION DISTRICT
3. MCMINNVILLE SCHOOL DISTRICT
4. NEWBERG SCHOOL DISTRICT
5. SHERIDAN SCHOOL DISTRICT
6. YAMHILL-CARLTON SCHOOL DISTRICT

STATE AGENCIES

1. OREGON DEPT. OF AGRICULTURE
2. OREGON DEPT. OF ENVIRONMENTAL QUALITY
3. OREGON DEPT. OF FISH & WILDLIFE
4. OREGON DEPT. OF FORESTRY
5. OREGON DEPT. OF STATE LANDS
6. OREGON WATER RESOURCES DEPARTMENT
7. OREGON WATERSHED ENHANCEMENT BOARD

Federal Agencies

1. US Army Corp of Engineers
2. US Bureau of Land Management
3. US Dept. of Agriculture
4. US Farm Service Agency
5. US Fish & Wildlife Service
6. US Forest Service
7. US Geologic Survey
8. US National Marine Fisheries Service
9. US Natural Resources Conservation Service

Tribal Governments

1. Confederated Tribes of Grand Ronde
2. Confederated Tribes of Warm Springs

*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

WANT TO GET OUTSIDE & HELP
US IMPLEMENT WATERSHED
PROJECTS?

GET INVOLVED WITH OUR
FIELD-BASED VOLUNTEER /
INTERNSHIP PROGRAMS

HABITAT RESTORATION

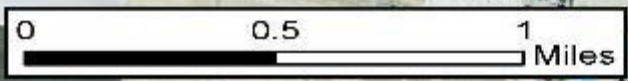
- (YEAR-ROUND) WEEDING & PROJECT MAINTENANCE WORK PARTIES
- (JUN – SEP) CREEK TRASH CLEANUPS & NATIVE PLANT SEED COLLECTION
- (OCT – MAR) NATIVE PLANT LIVE STAKE CUTTING COLLECTION AND NATIVE PLANTING WORK PARTIES



Streamside & Upland Habitat Restoration Projects in the City of McMinnville



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



FISH SPAWNING & HABITAT SURVEYS (AKA CREEK-WALKS)

- (FEB – MAY) WINTER STEELHEAD
- (OCT – DEC) COHO SALMON

WATER QUALITY MONITORING

- (MAR – OCT) PESTICIDES & STREAM FLOW
- (MAY – OCT) SUMMER STREAM TEMPERATURE
- HELP US EXPAND THIS PROGRAM!





QUESTIONS?

WHAT INTERESTS YOU?

**LUKE WESTPHAL
GYWC EXECUTIVE DIRECTOR**

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

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