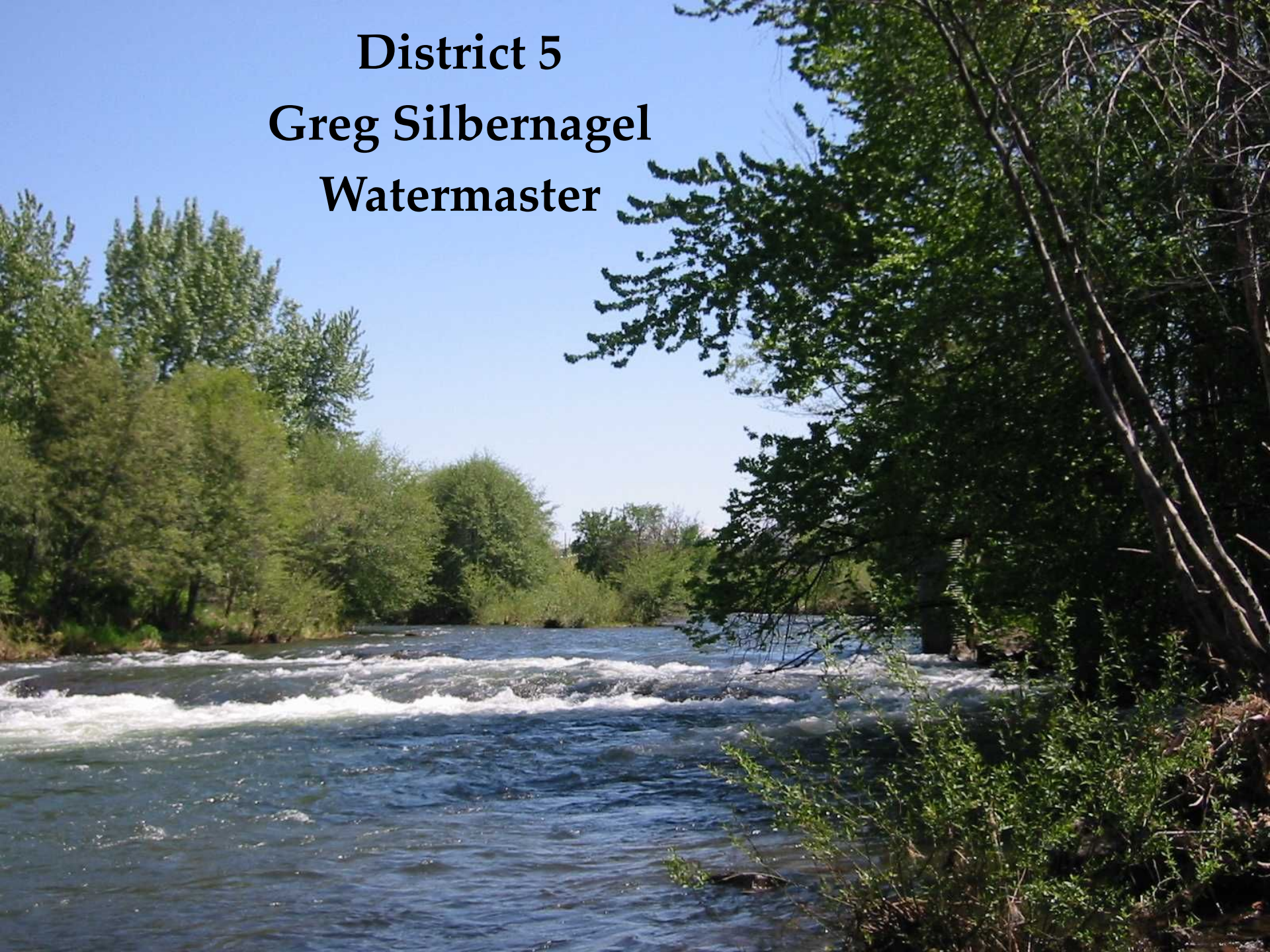
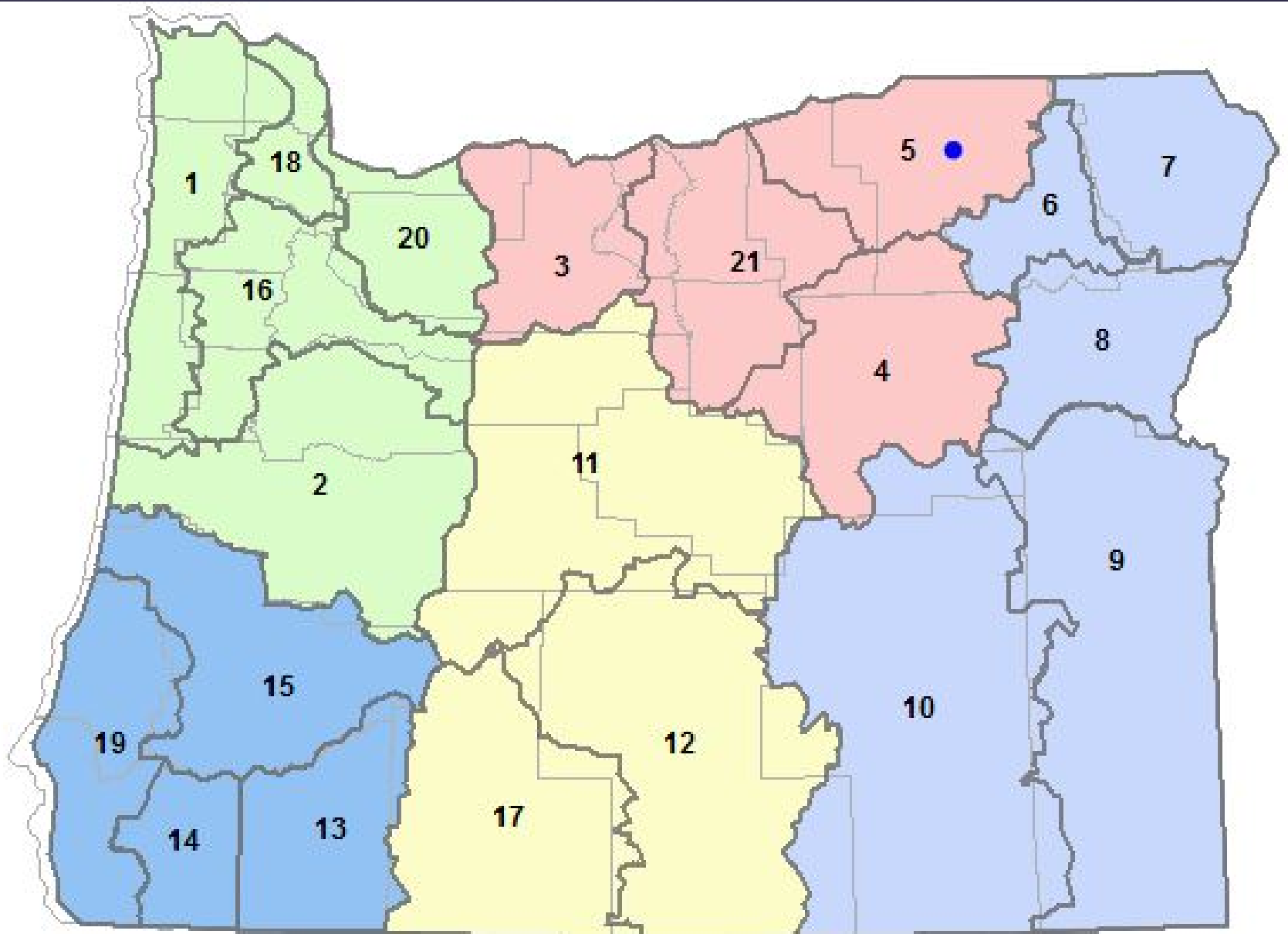


**District 5**  
**Greg Silbernagel**  
**Watermaster**



# District 5



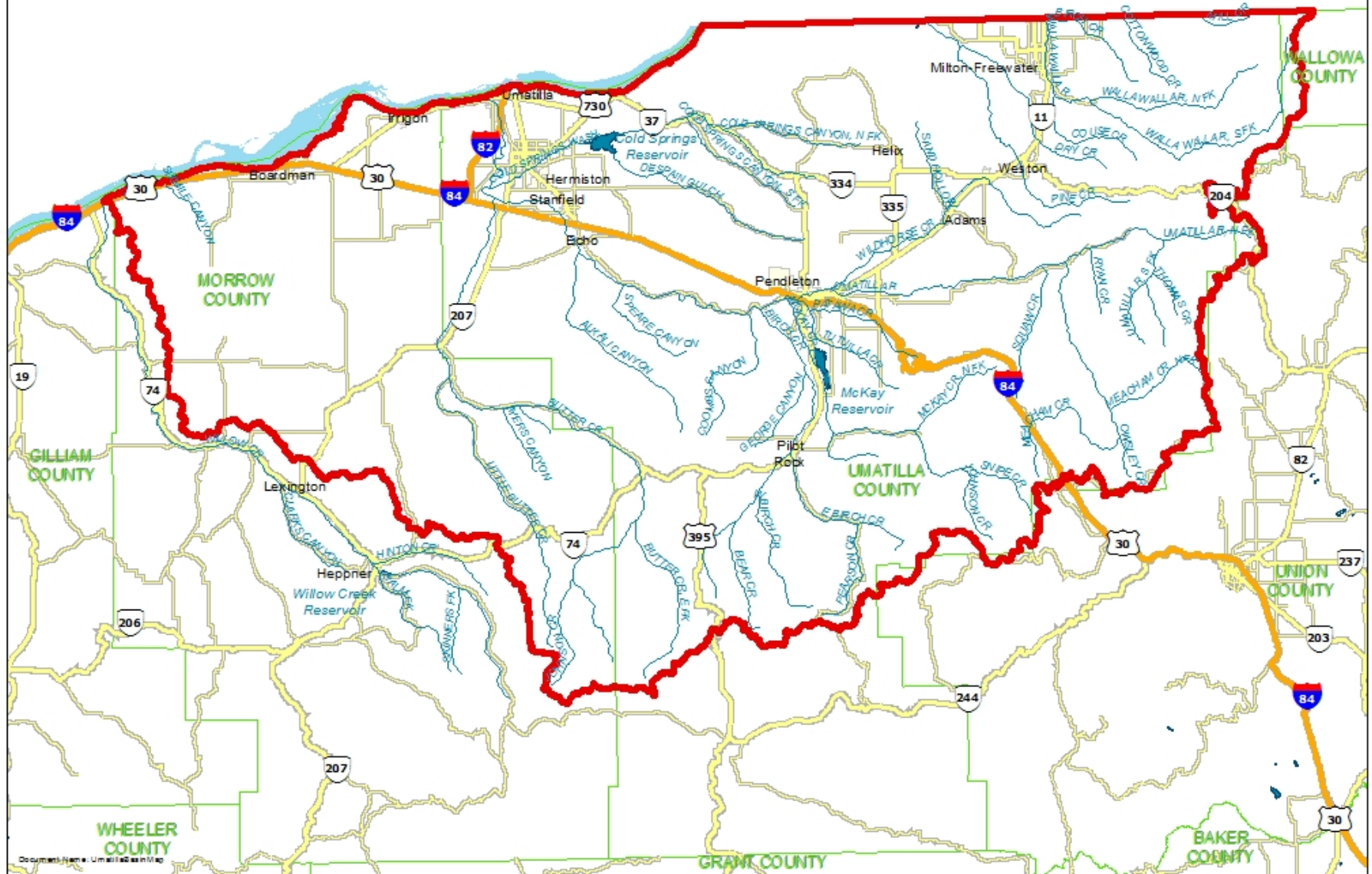




# Oregon Water Resources Department Watermaster District 5



1 inch = 57,500 feet

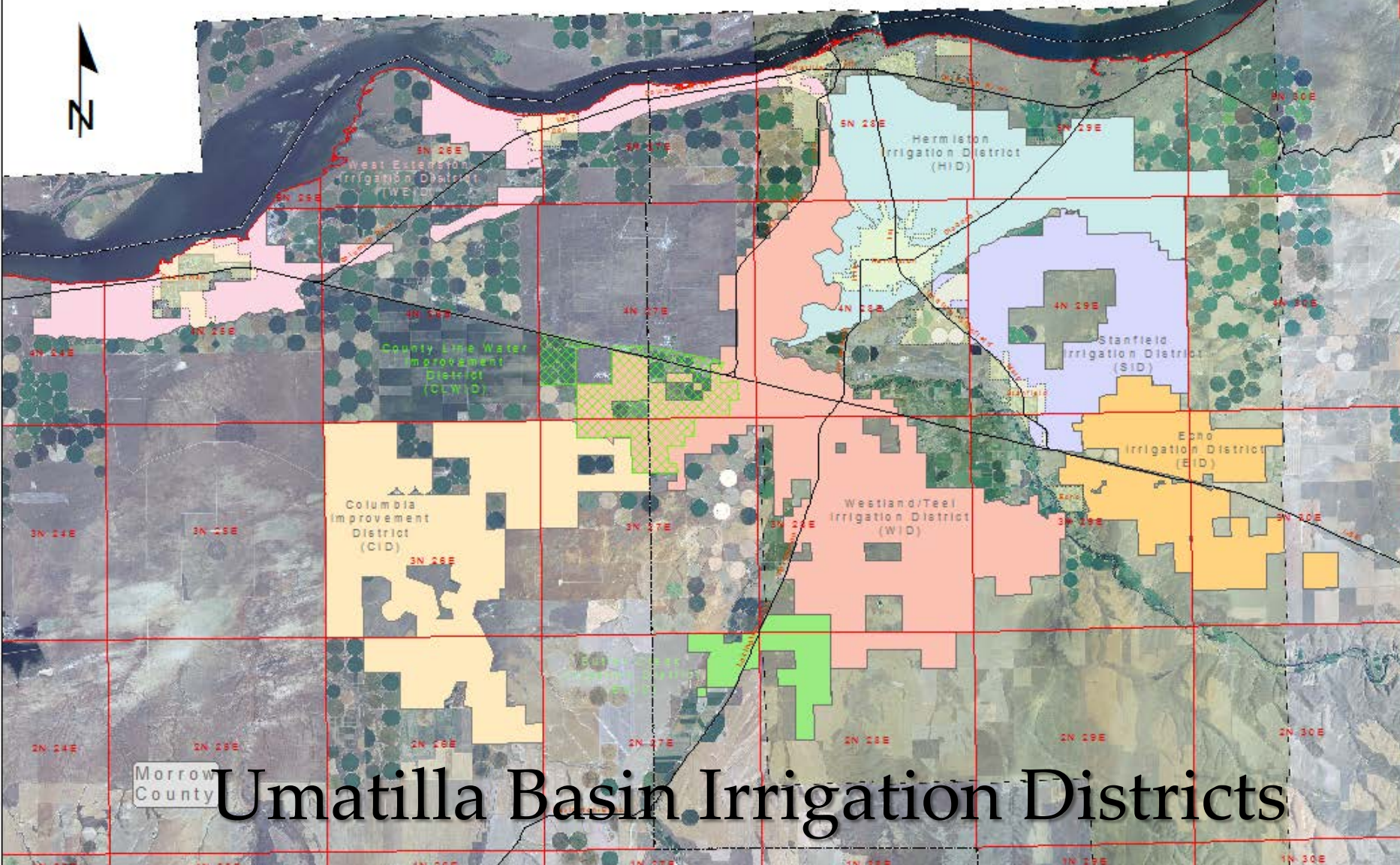


# District 5 – Complex Management

- Regulate 15 rivers and streams on a regular basis
- 513,000 primary and supplemental acres
- 36 gaging stations
- 6 main irrigation districts
  - Umatilla Basin - 58,000 acres
  - Walla Walla sub-basin – 11,400 acres



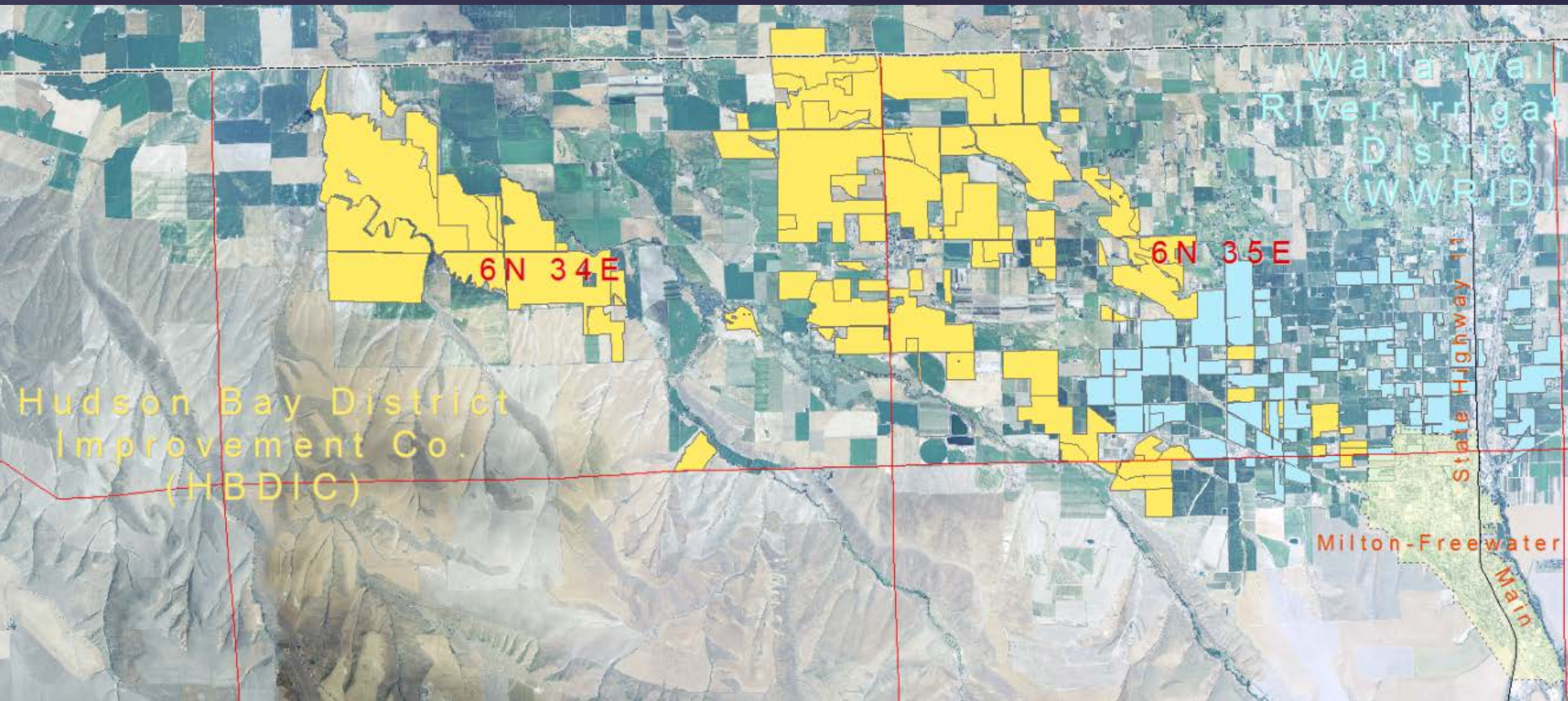




Morrow County **Umatilla Basin Irrigation Districts**



# Walla Walla Sub-Basin Irrigation Districts



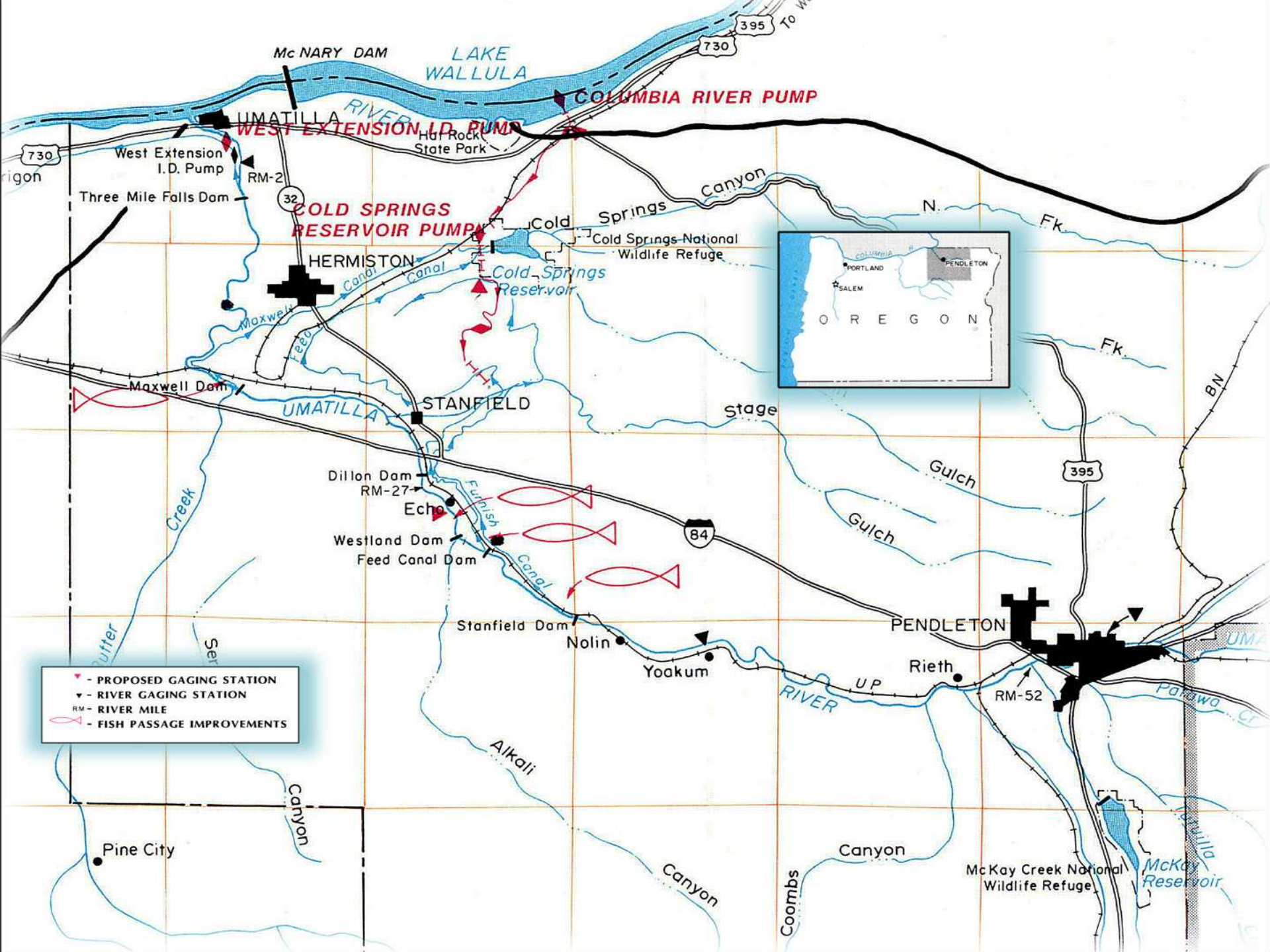


# Umatilla Basin Exchange Project

- Involves three irrigation districts
- Agriculture grows / fish thrive







Mc NARY DAM

LAKE WALLULA

COLUMBIA RIVER PUMP

UMATILLA RIVER WEST EXTENSION I.D. PUMP

COLD SPRINGS RESERVOIR PUMP

HERMISTON

Cold Springs Reservoir

STANFIELD

PENDLETON

Rieth

Nolin

Yoakum

Dillon Dam RM-27

Echo

Westland Dam Feed Canal Dam

Stanfield Dam

McKay Creek National Wildlife Refuge

McKay Reservoir



- ▲ - PROPOSED GAGING STATION
- ▼ - RIVER GAGING STATION
- RM - RIVER MILE
- 🐟 - FISH PASSAGE IMPROVEMENTS

Pine City

Canyon

Canyon

Canyon

Coombs

Umatilla

Parawa Cr

RIVER

UMATILLA

Creek

Butter

Ser

Alkali

stage

Gulch

Gulch

395

84

RM-2

32

RM-27

RM-52

730

395

730

regon

West Extension I.D. Pump

Three Mile Falls Dam

Hot Rock State Park

Cold Springs Canyon

Cold Springs National Wildlife Refuge

N.

Fk.

Fk.

BN

UM.

Umatilla

Cr

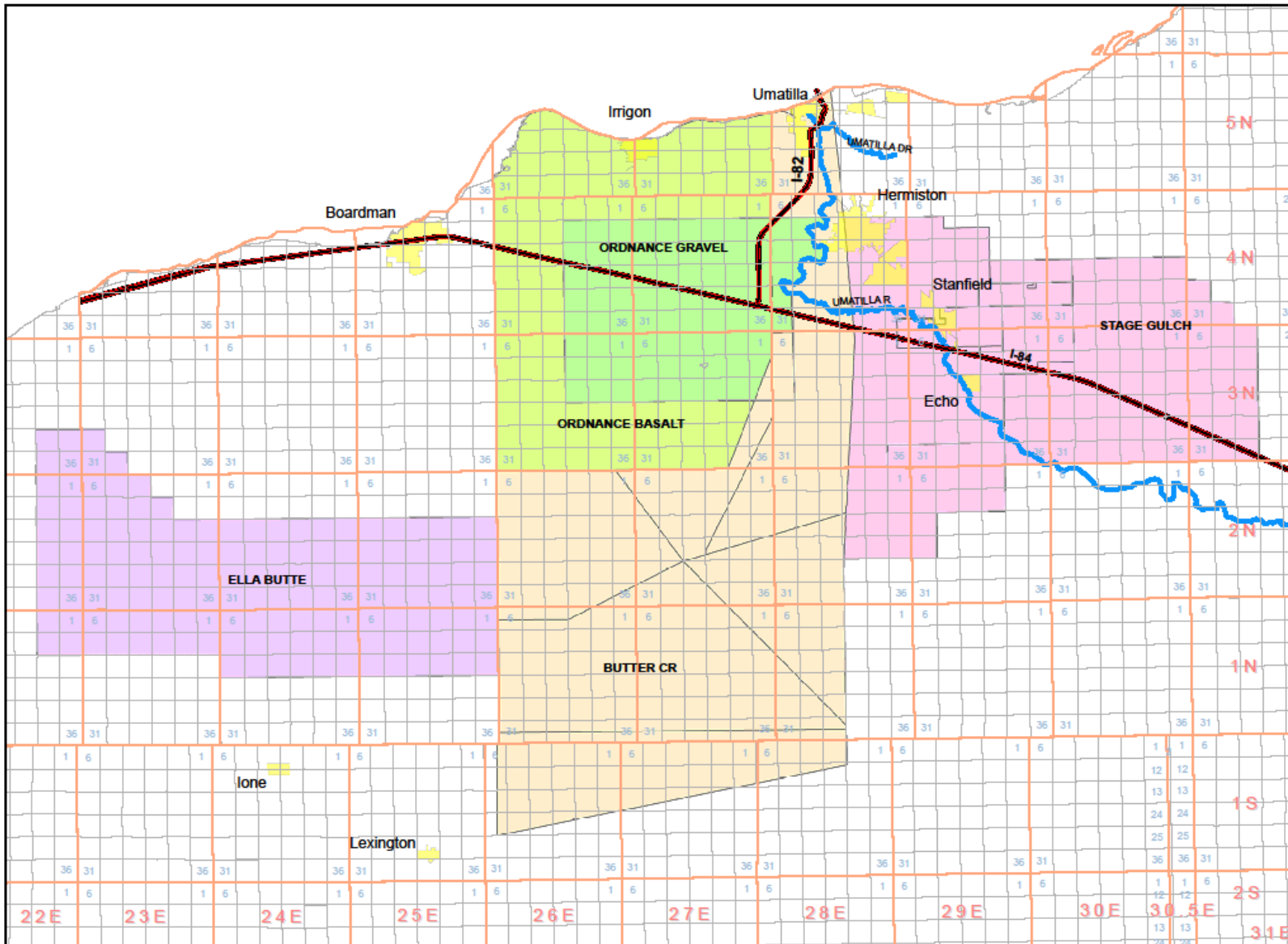
Cr

Cr

Cr



# Umatilla Basin Critical Groundwater Areas



**Umatilla Basin**  
**Critical Groundwater Sections and 5-Mile Radius**

Legend 1 inch = 21,120 feet

C&W Sections

- all other water
- BUTTER CR.
- BUTTER CR. EAST SUBAREA
- BUTTER CR. ECHO JUNCTION
- BUTTER CR. FOUNTAIN CANYON
- BUTTER CR. NORTH
- BUTTER CR. PINE CITY
- BUTTER CR. SOUTH
- BUTTER CR. WEST
- ELLA BUTTE
- ORDNANCE BASALT
- ORDNANCE BASALT, ORDNANCE GRAVEL
- STAGE GULCH

**Disclaimer**  
 The water rights shown on this map and in the accompanying report have been interpreted by the Department's staff from information in the Department's files and are intended to represent that information graphically. Locations shown are only approximate and should not be used in legal, financial, or real estate decisions. For more accurate legal location information, please contact the Department.

UmatillaBasinC&Wv25Mile.mxd - pb 01082010



# Groundwater Data Needs

- Pilot Rock
- Milton-Freewater



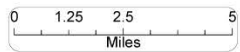
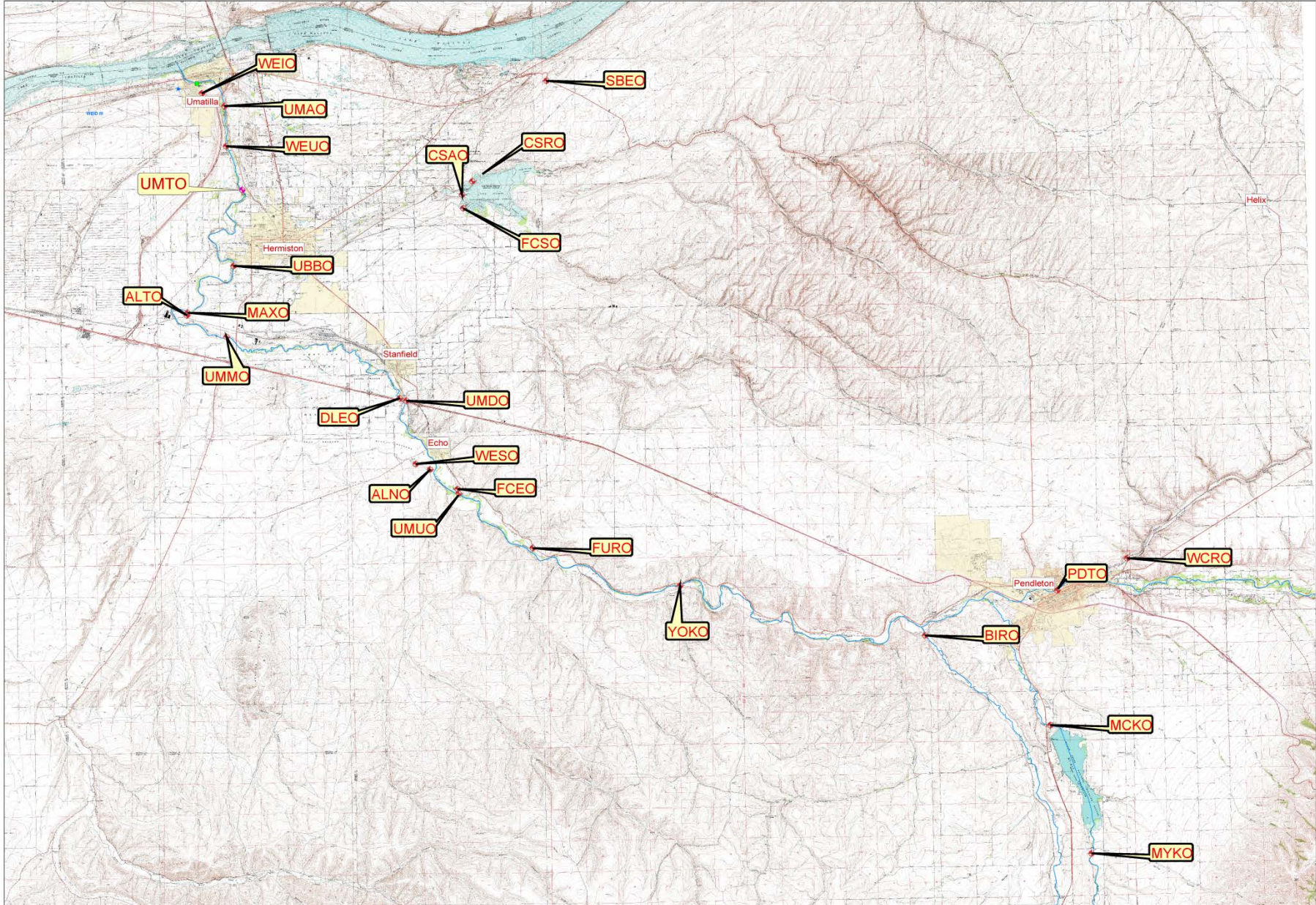


# Butter Creek and Umatilla/Mckay Management Plans

- Real-time Water Management / Regulation
- Intensive Staff Commitment
- Measuring devices and gaging stations







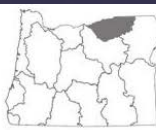
1 inch = 5,280 feet

gaging\_stations.mxd gis 09/12/2012

# Umatilla River Basin Gaging Stations



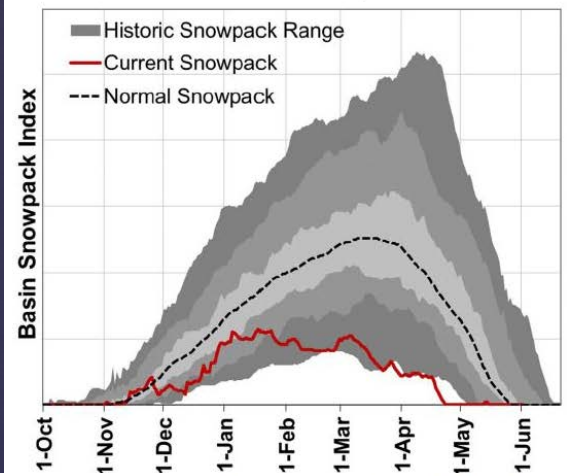




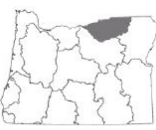
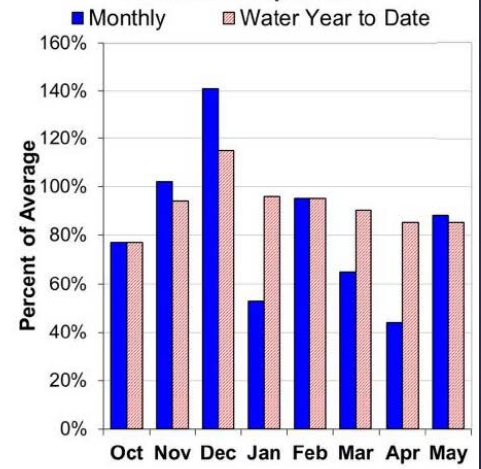
# Umatilla, Walla Walla, and Willow Basins

June 1, 2015

### Mountain Snowpack



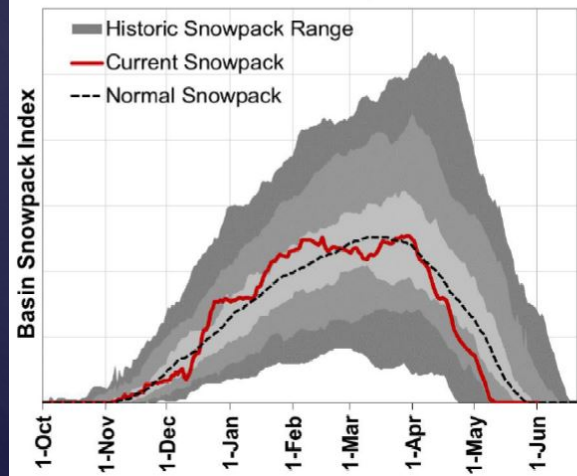
### Basin Precipitation



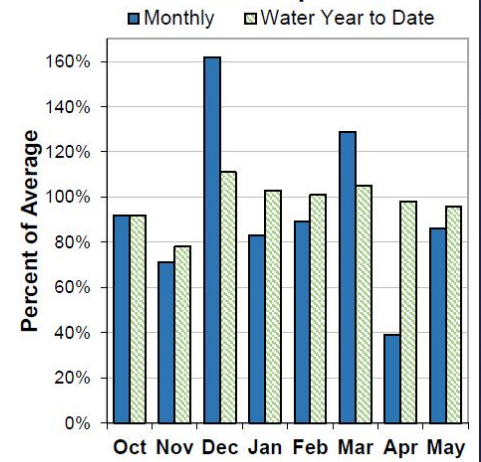
# Umatilla, Walla Walla and Willow Basins

June 1, 2016

### Mountain Snowpack



### Basin Precipitation





# Percent of Average Streamflow Month of July, 2016

## Percent of Average Streamflow

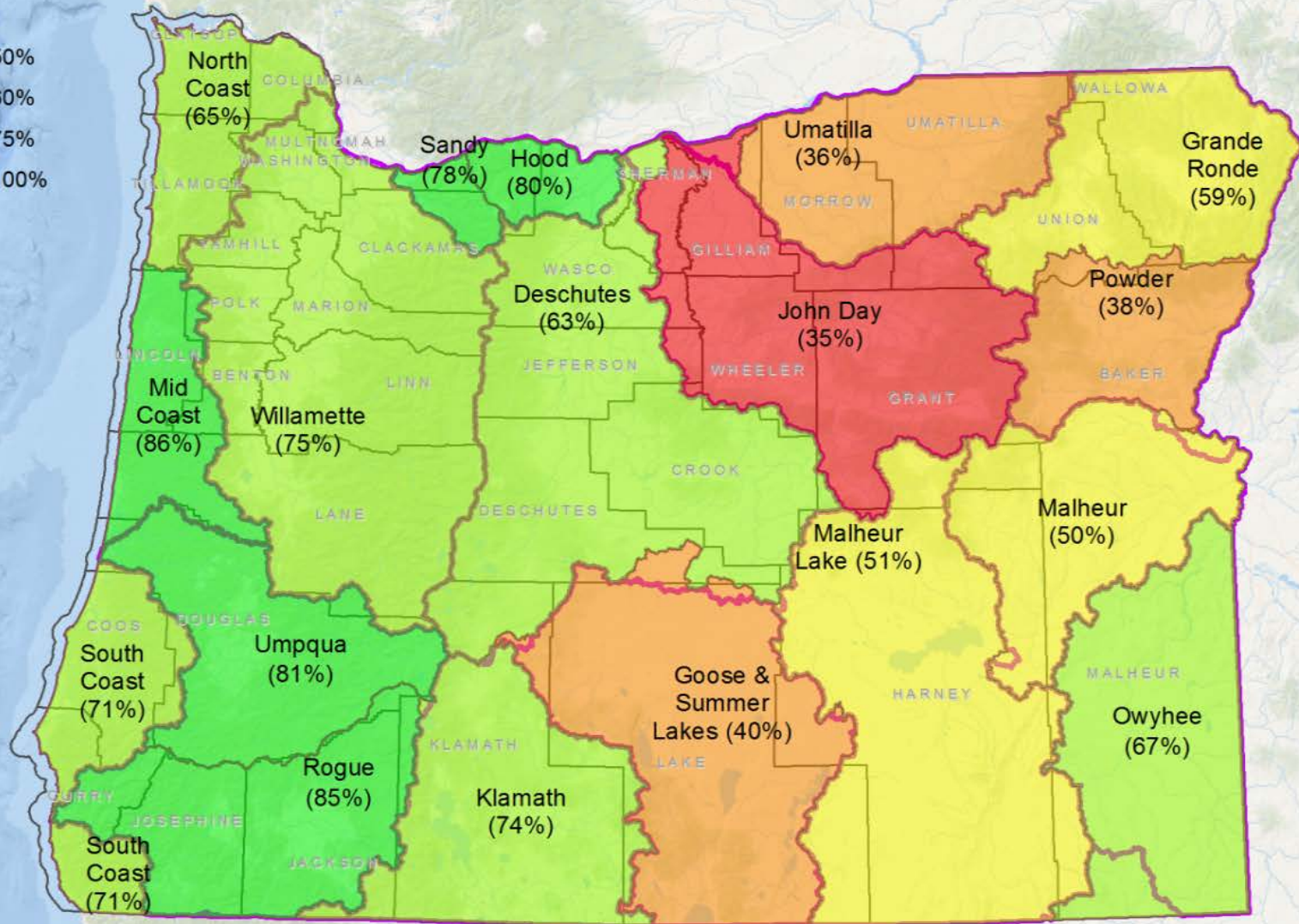
### OWRD Basins

- < 36%
- 36% - 50%
- 51% - 60%
- 61% - 75%
- 76% - 100%

### NRCS Basins



### Counties



Average streamflow data are based on 30 years of record (1981-2010). All data represent free-flowing streams unaffected by significant man-made control structures such as dams or diversion works.



# NCR Team



From L – R: Bob Wood, Paul Word, Ken Thiemann, Doug Nelson, Dan Koch, Valerie Scott, Ken Dowden, Audrey Squires, Eric Julsrud, Patsy Hayzlett, Erik Thomasser, Curtis Cooley, Greg Silbernagel and Mike Ladd. Not pictured – Paul Hendricks, Hailey Boethin