



# White River

WQ data sharing  
Quarterly meeting 10/11/2021

King County Stormwater Services

# Previously....

- King County's NPDES permit requirements
- Area of work (White River)
- Approach, screening of stormwater system
  - Rationale
  - Emphasis on OSS
  - Examples of problems found, 2019-2020
- Approach, sampling of watercourses on Enumclaw plateau
  - Rationale
  - Results

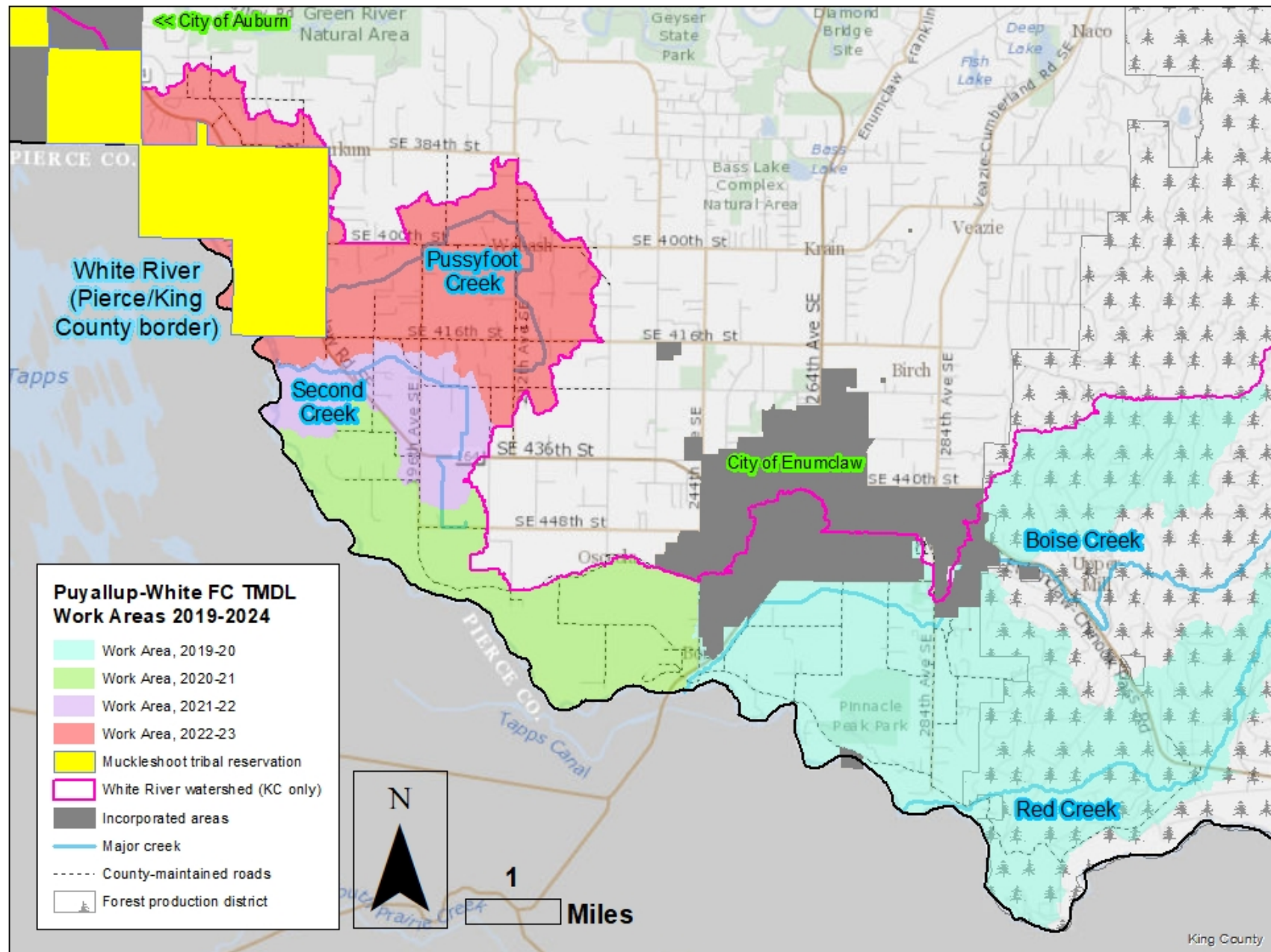
# Today

- Results, last wet season's MS4 screening
- Recent WQ complaint investigations
- *E. coli* in watercourses of Enumclaw plateau – revisit
- Plans for this wet season

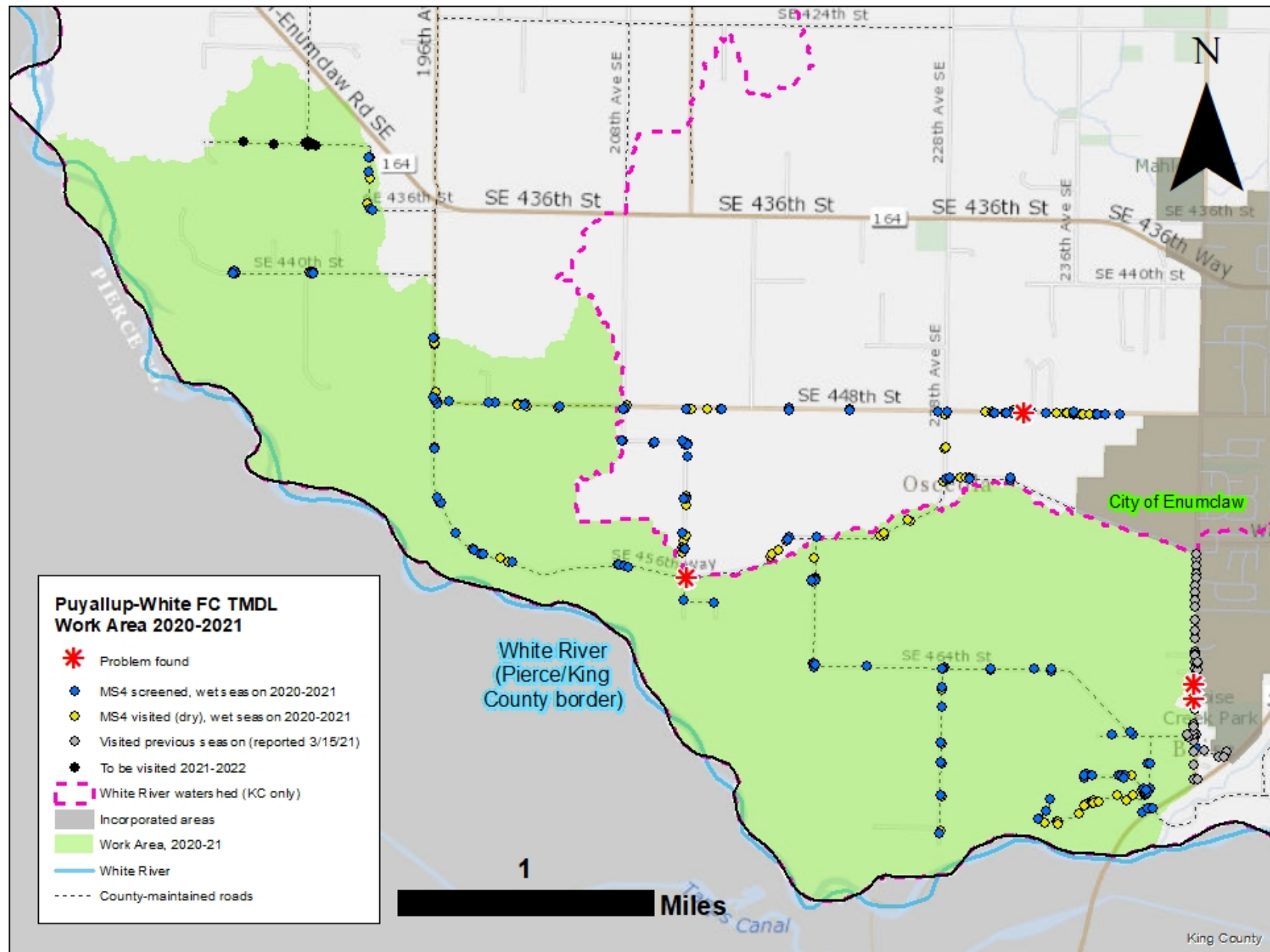
# Acknowledgements

- Meagan Jackson and colleagues (Public Health - Seattle/KC)
- Eric Palmer, City of Enumclaw
- Michael Isensee, WSDA

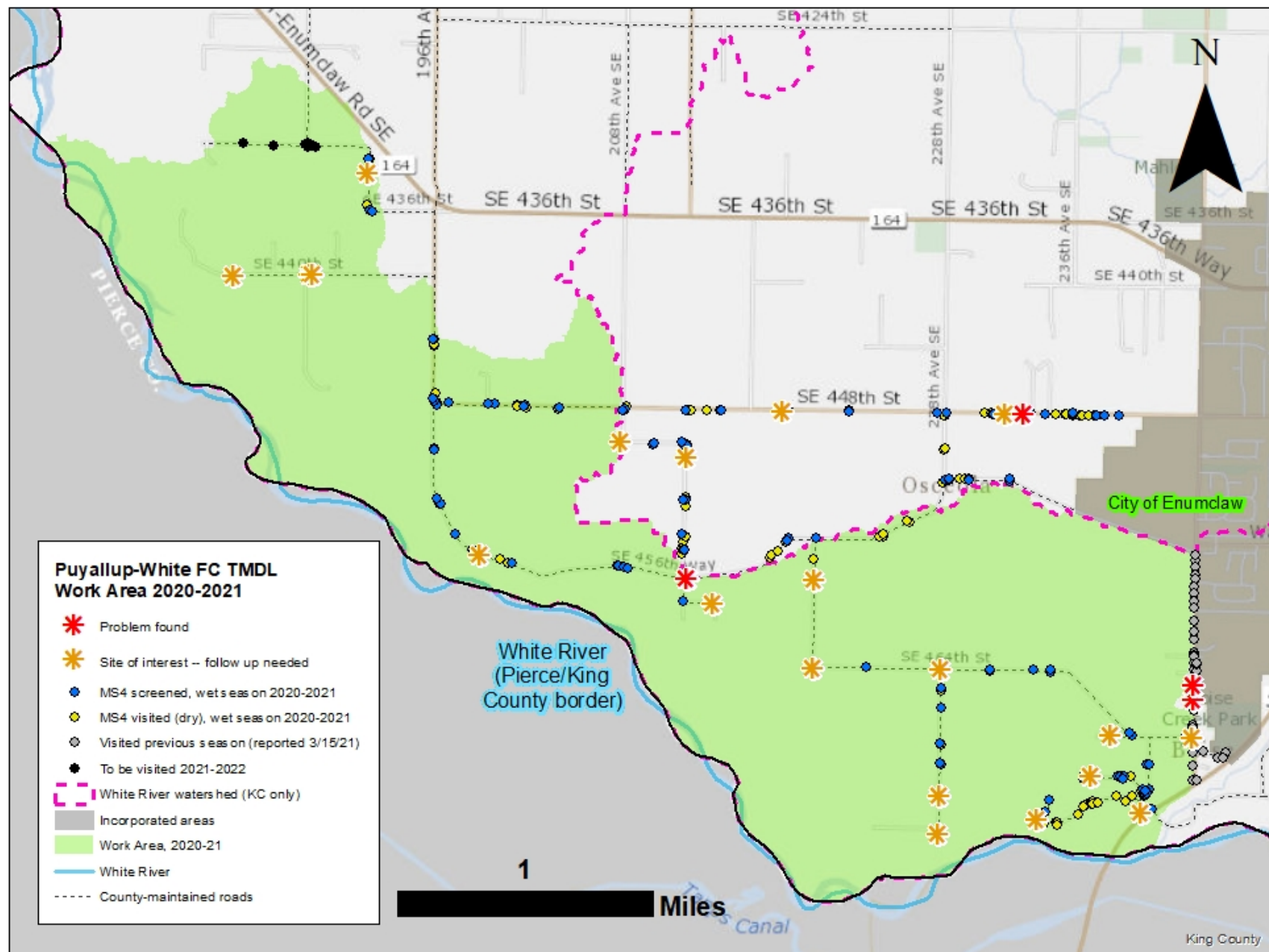




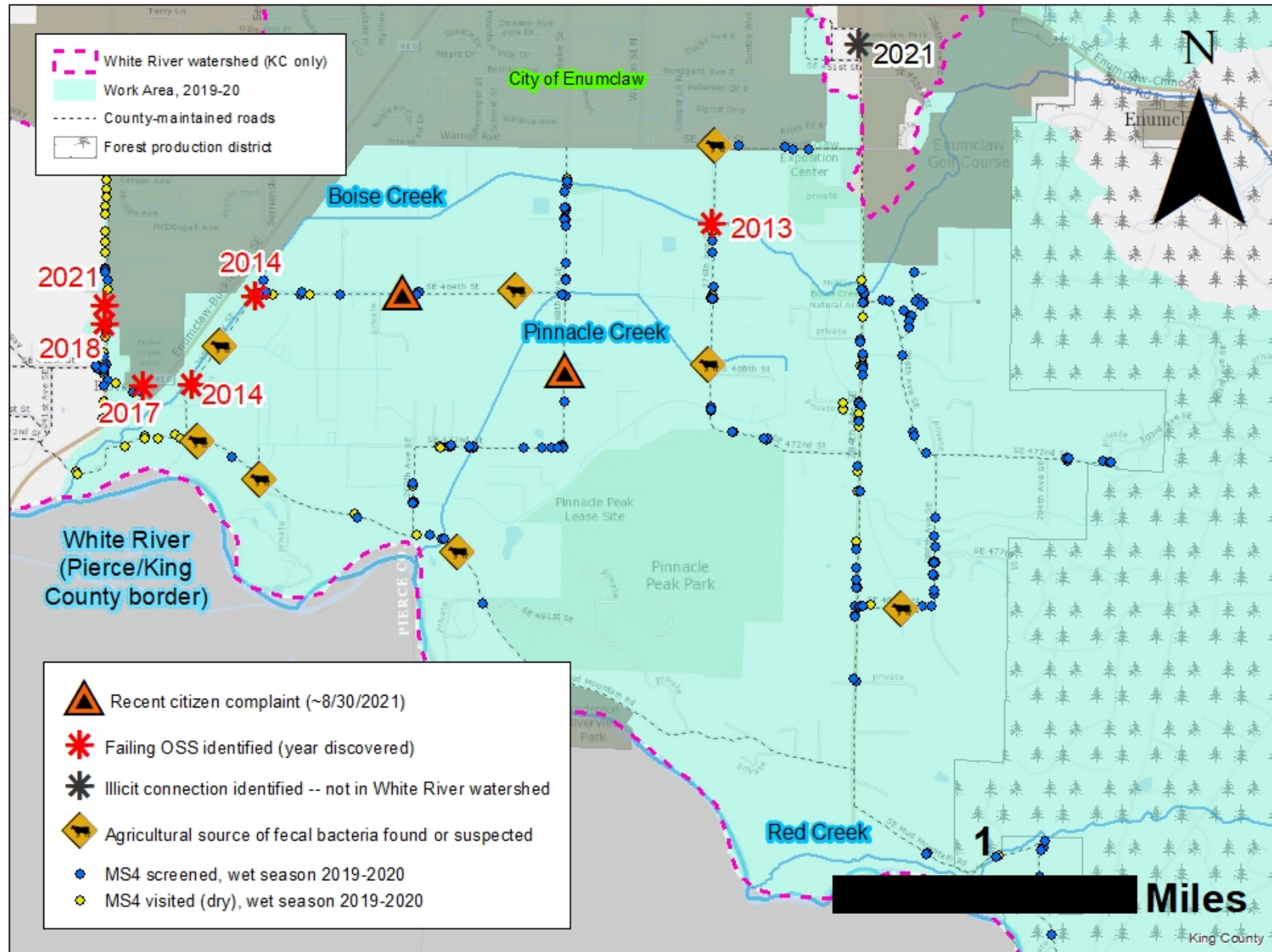




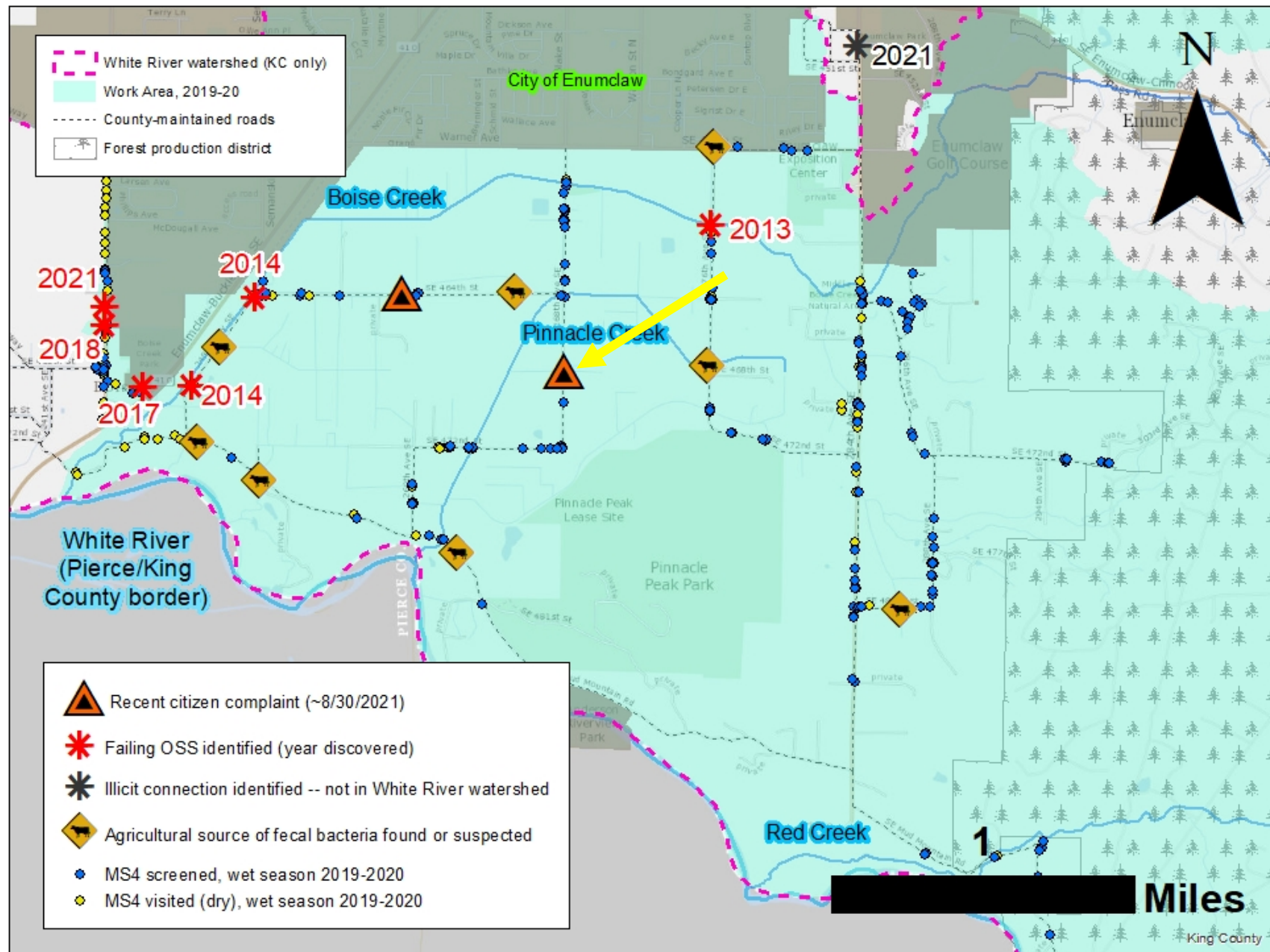




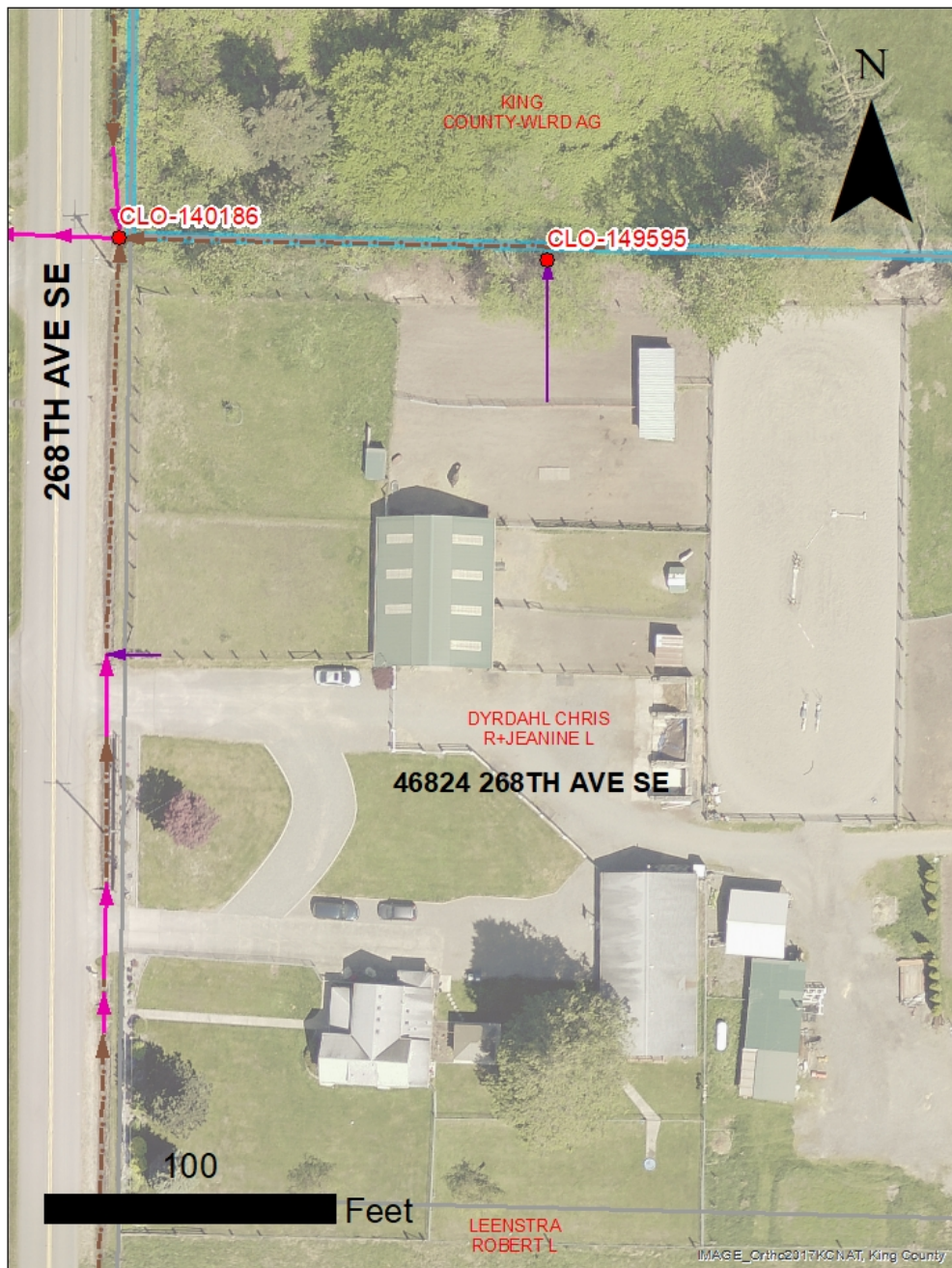




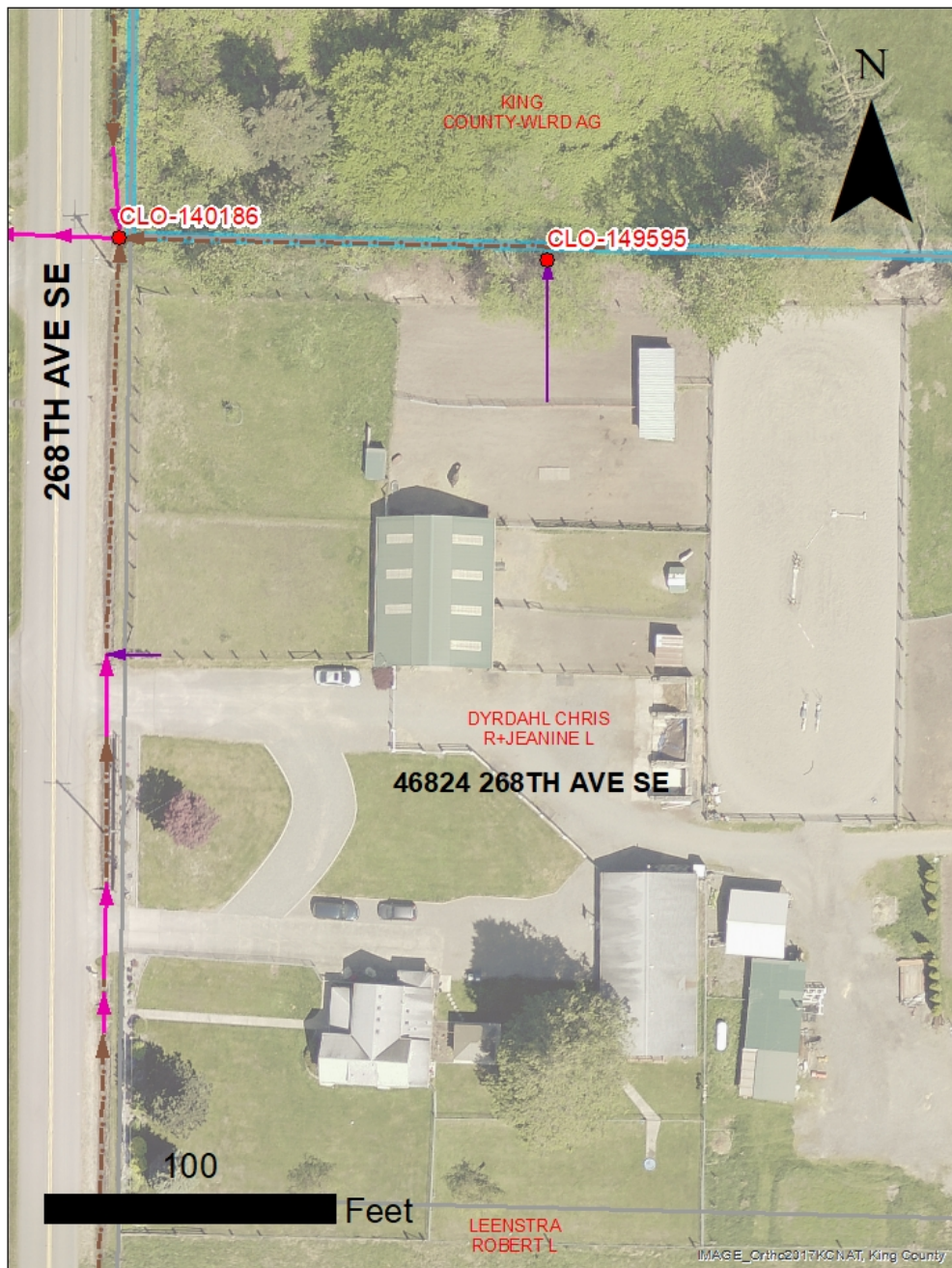




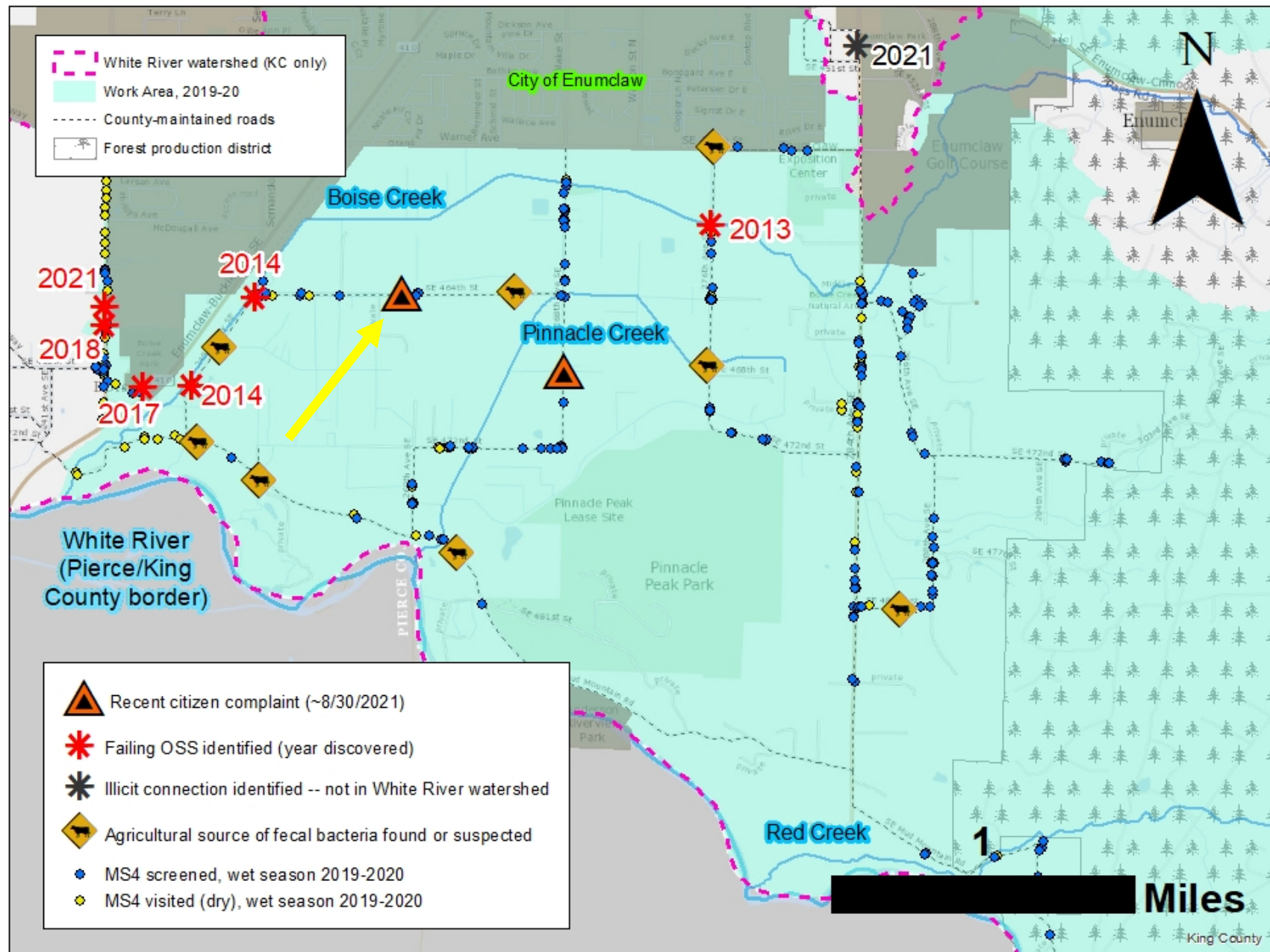














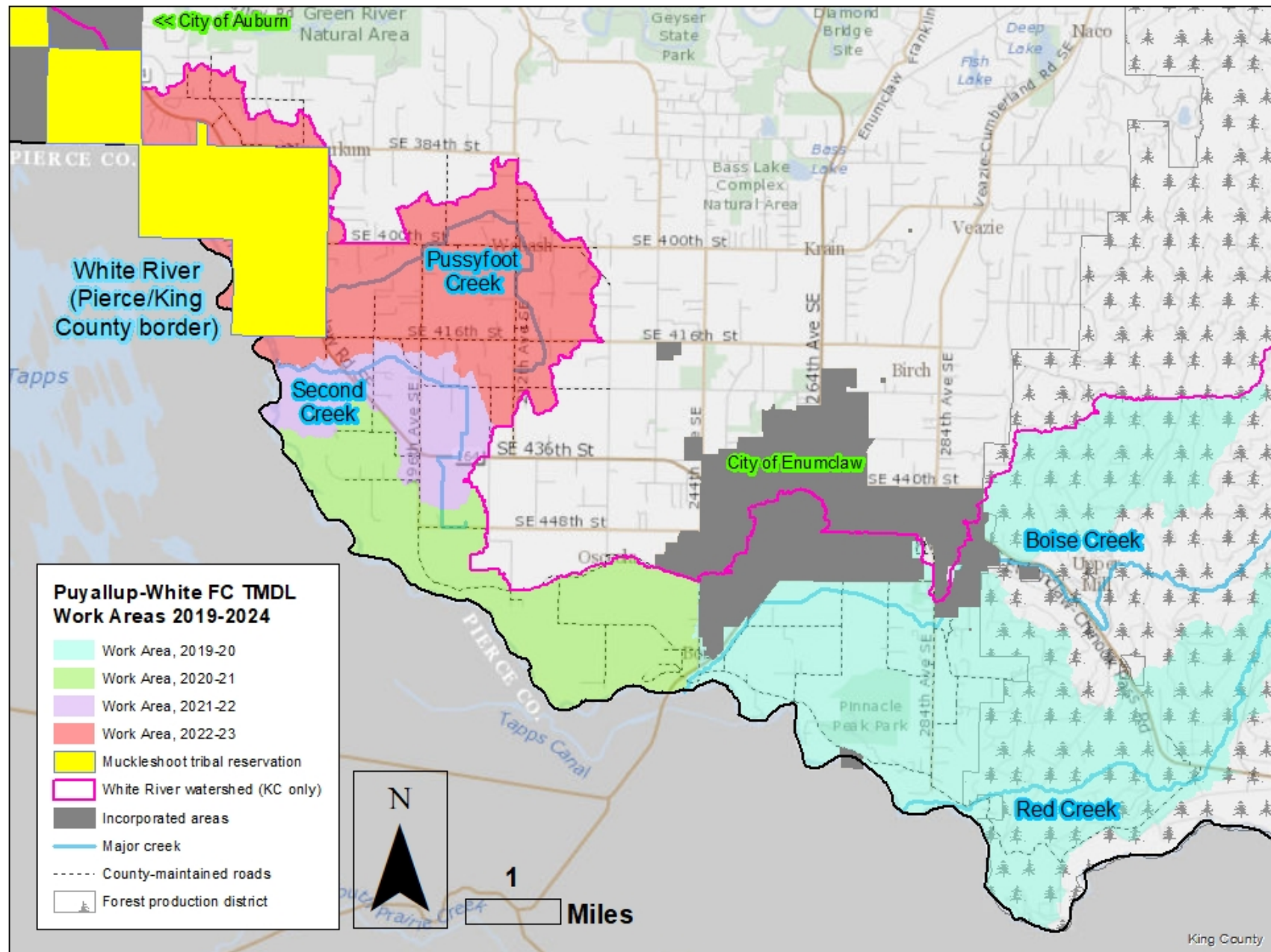


Sewage smell

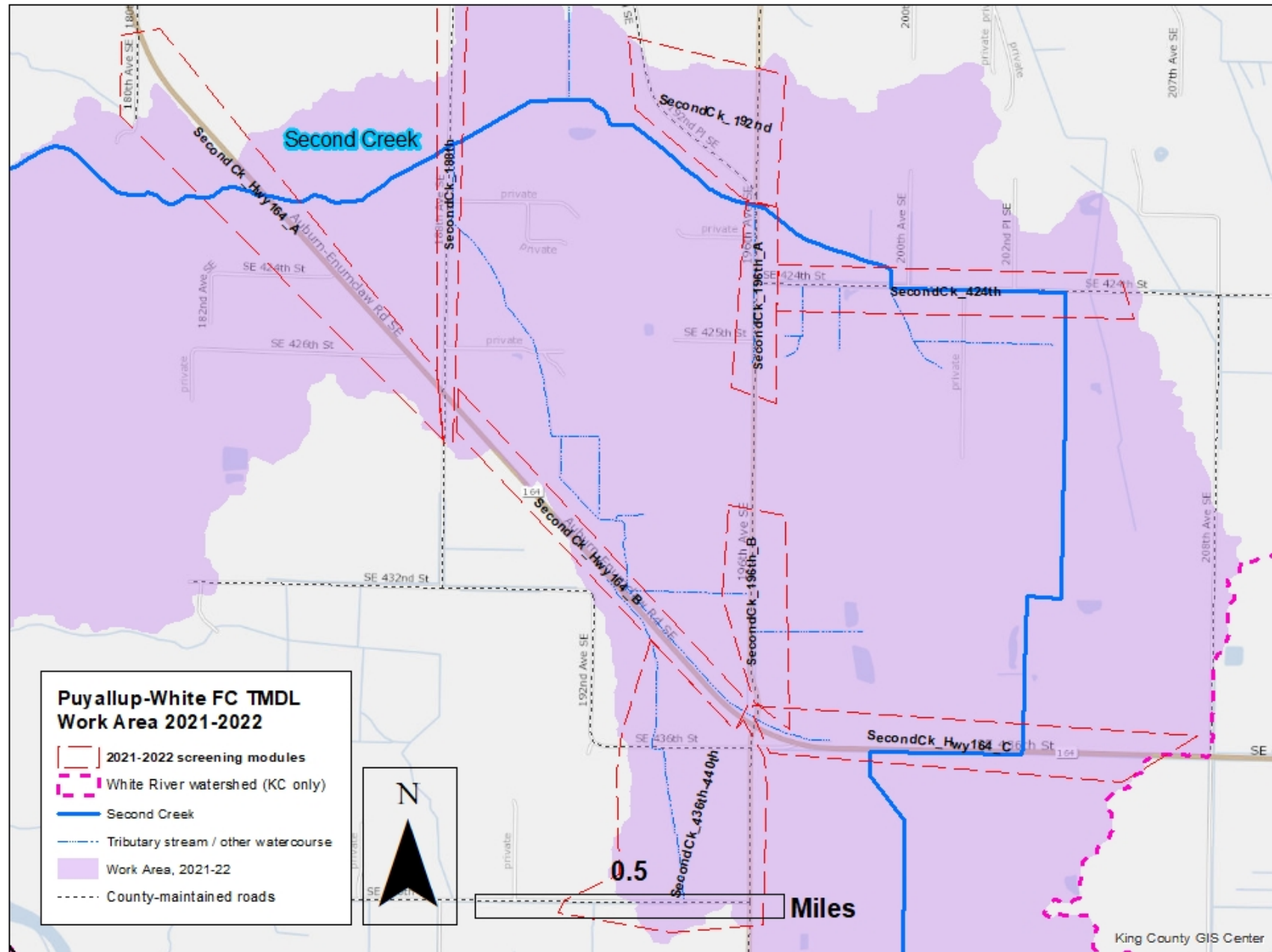
*E. coli* = 45000 cfu/100 mL

Hu-2, Hu-3 not detected

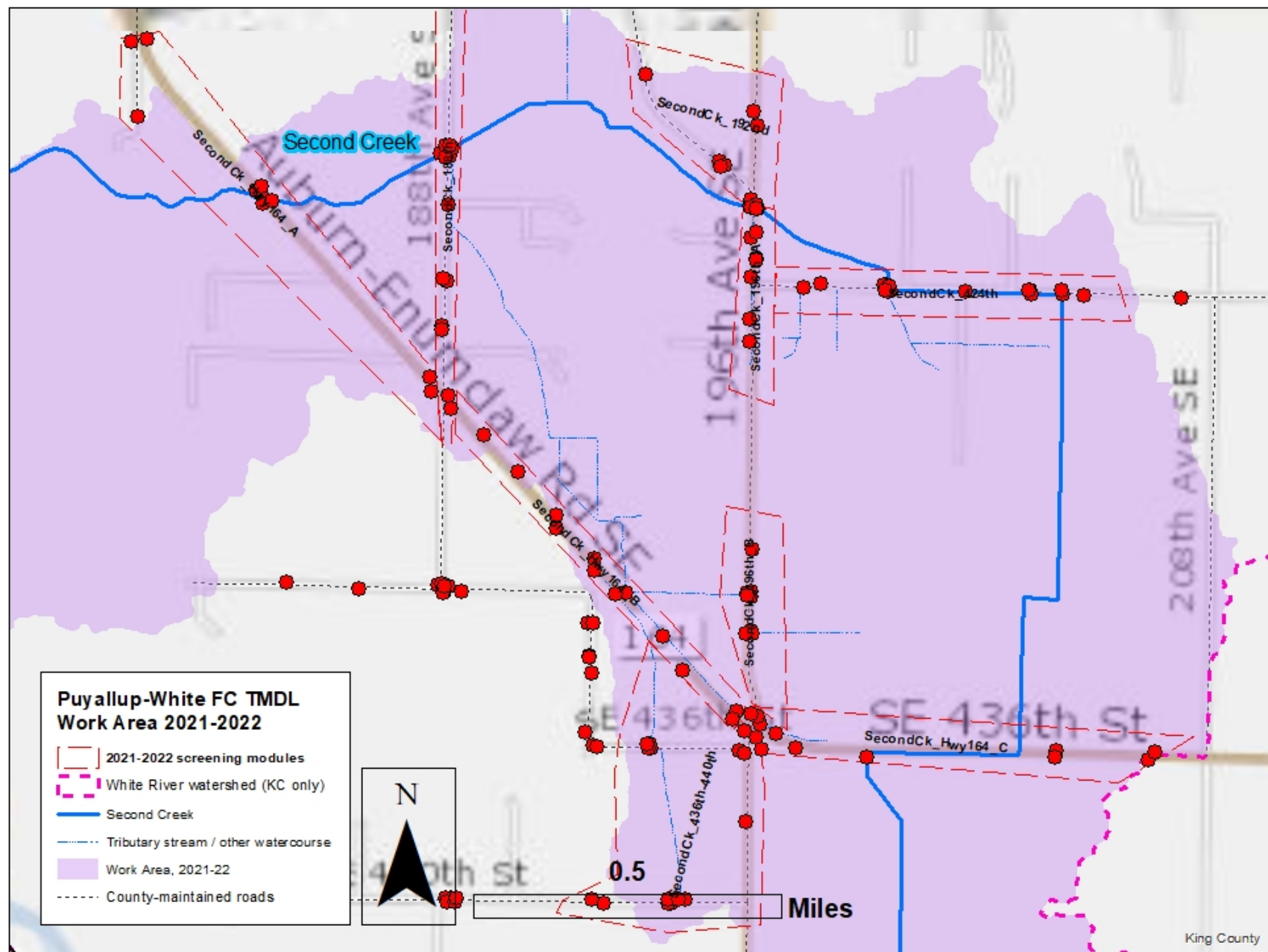




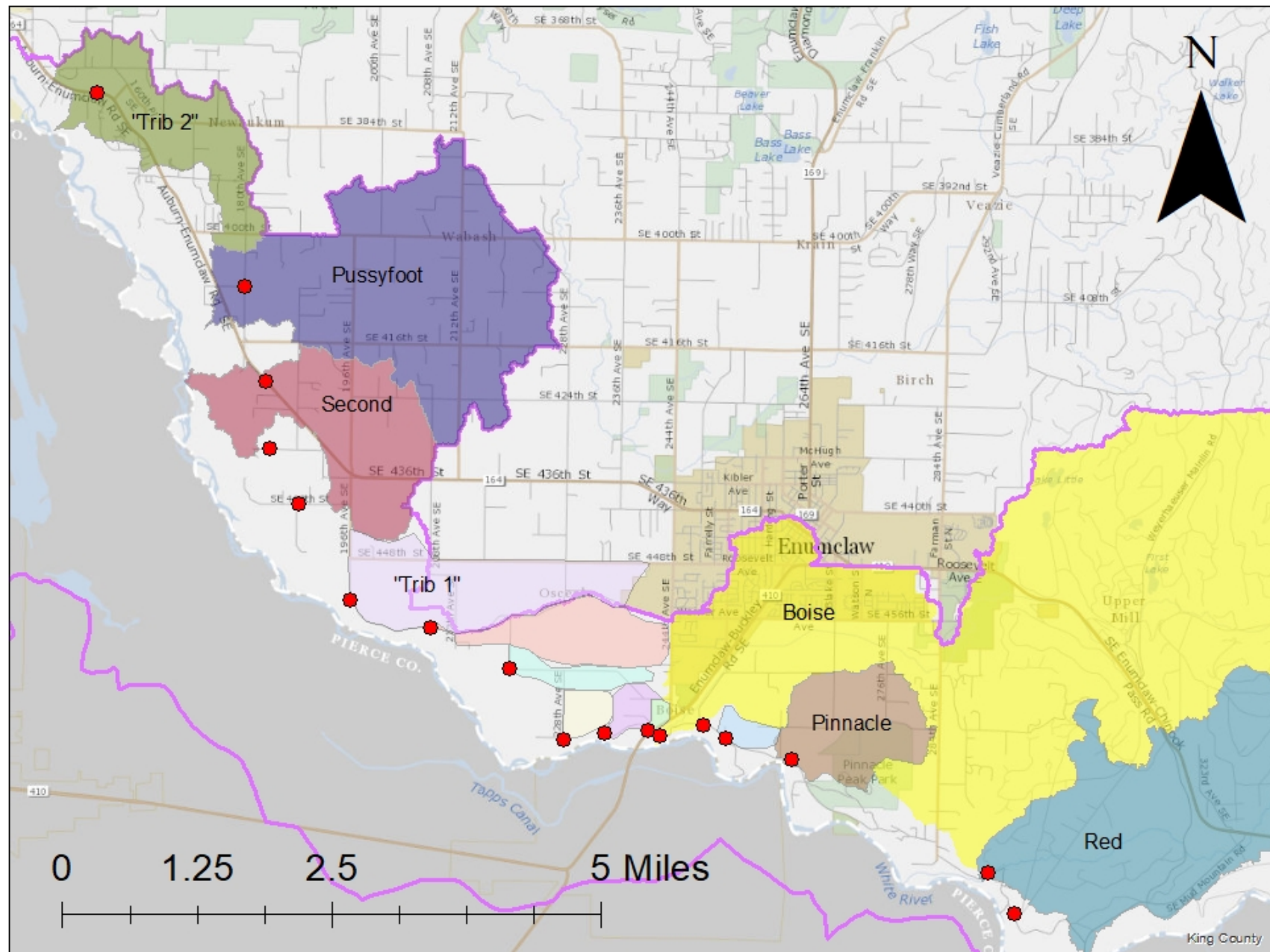




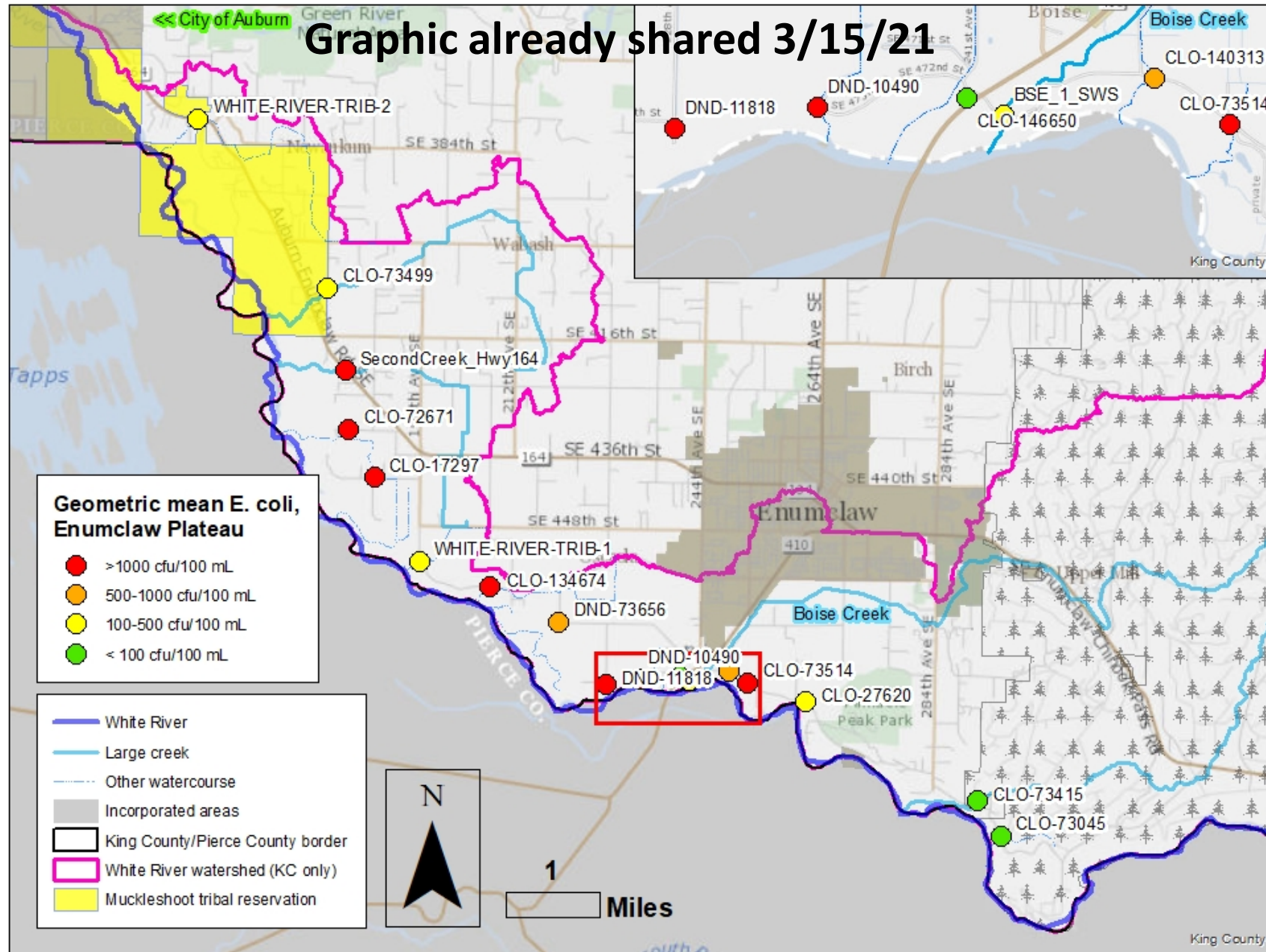






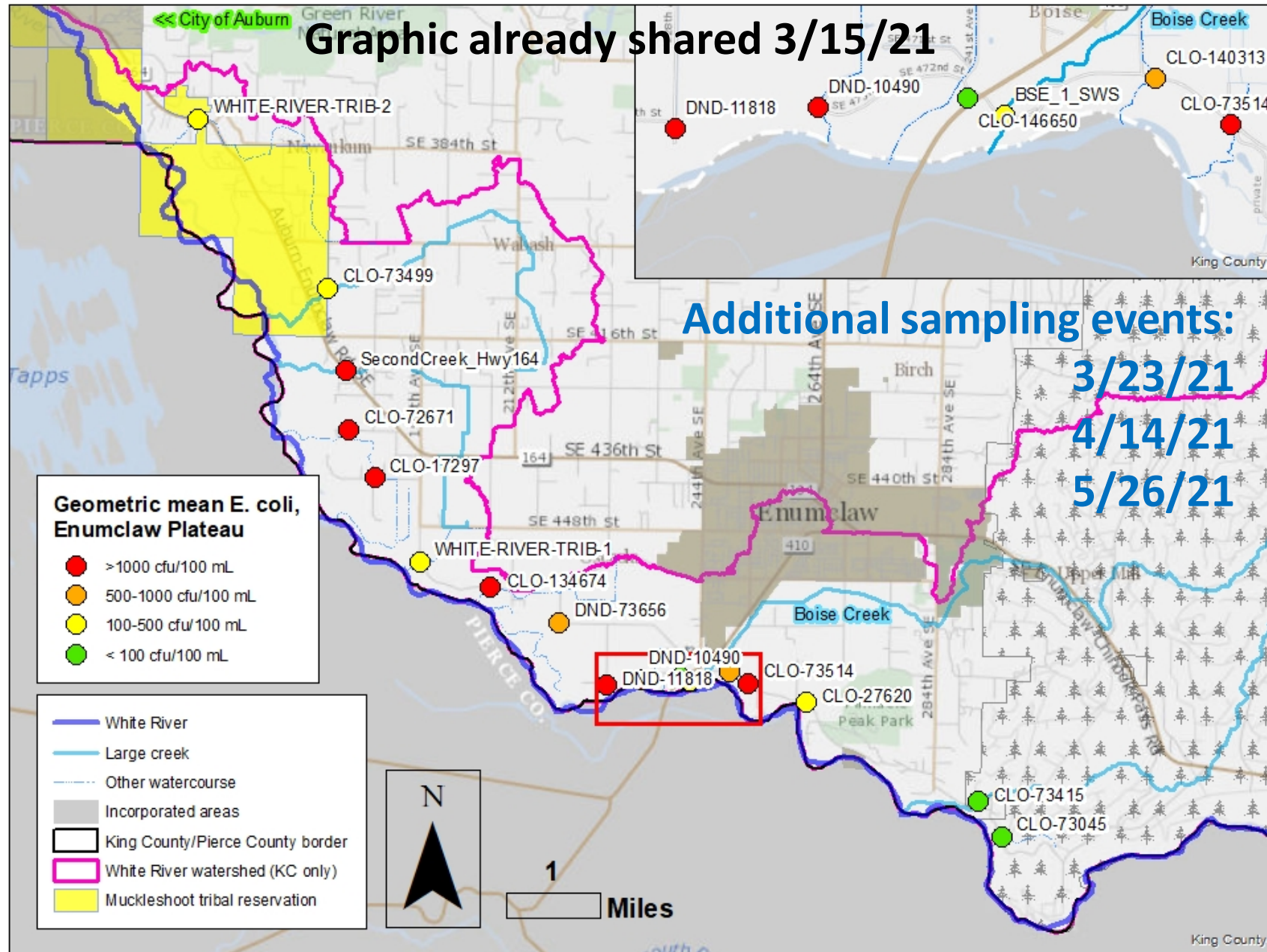


Graphic already shared 3/15/21





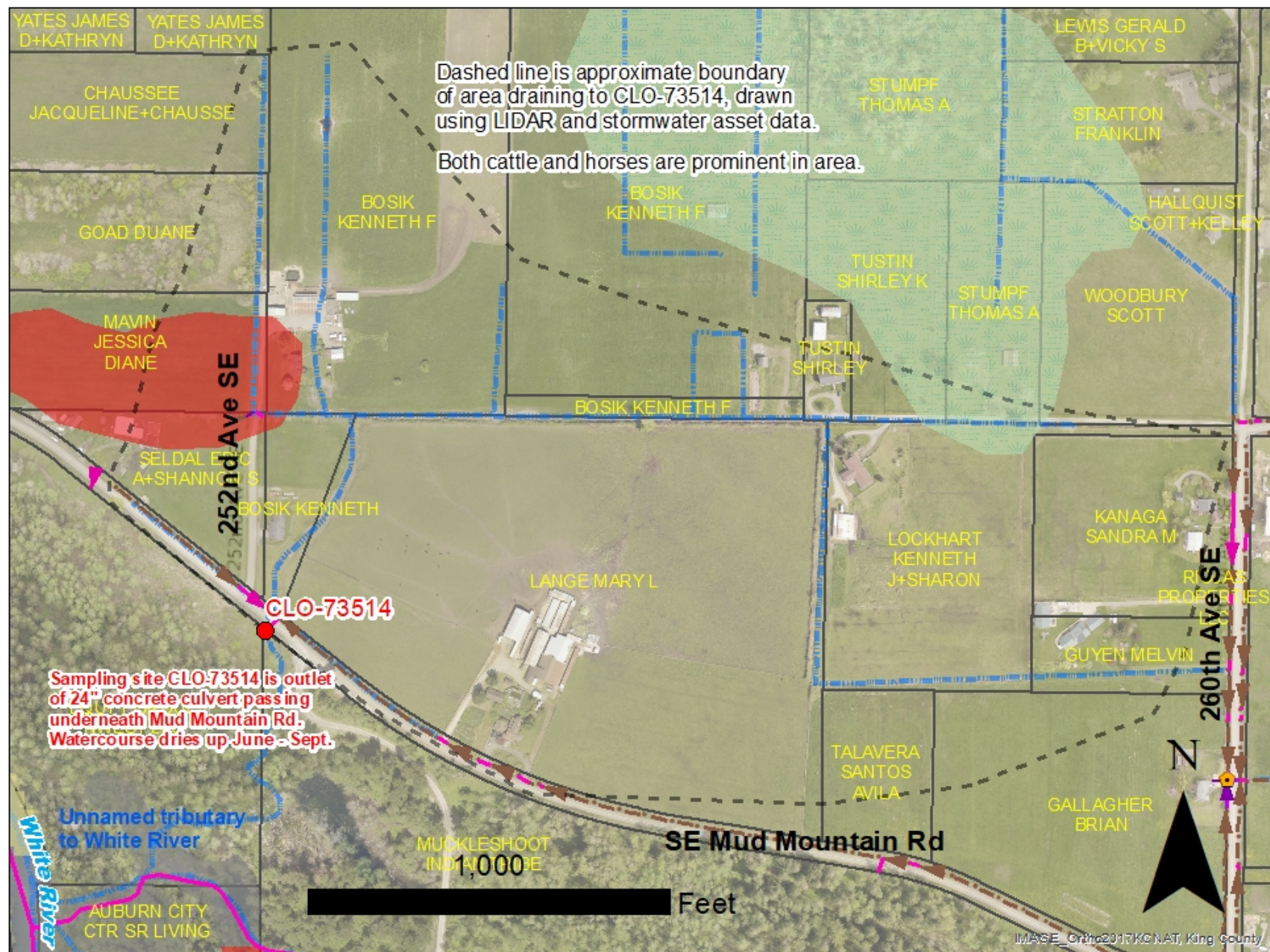
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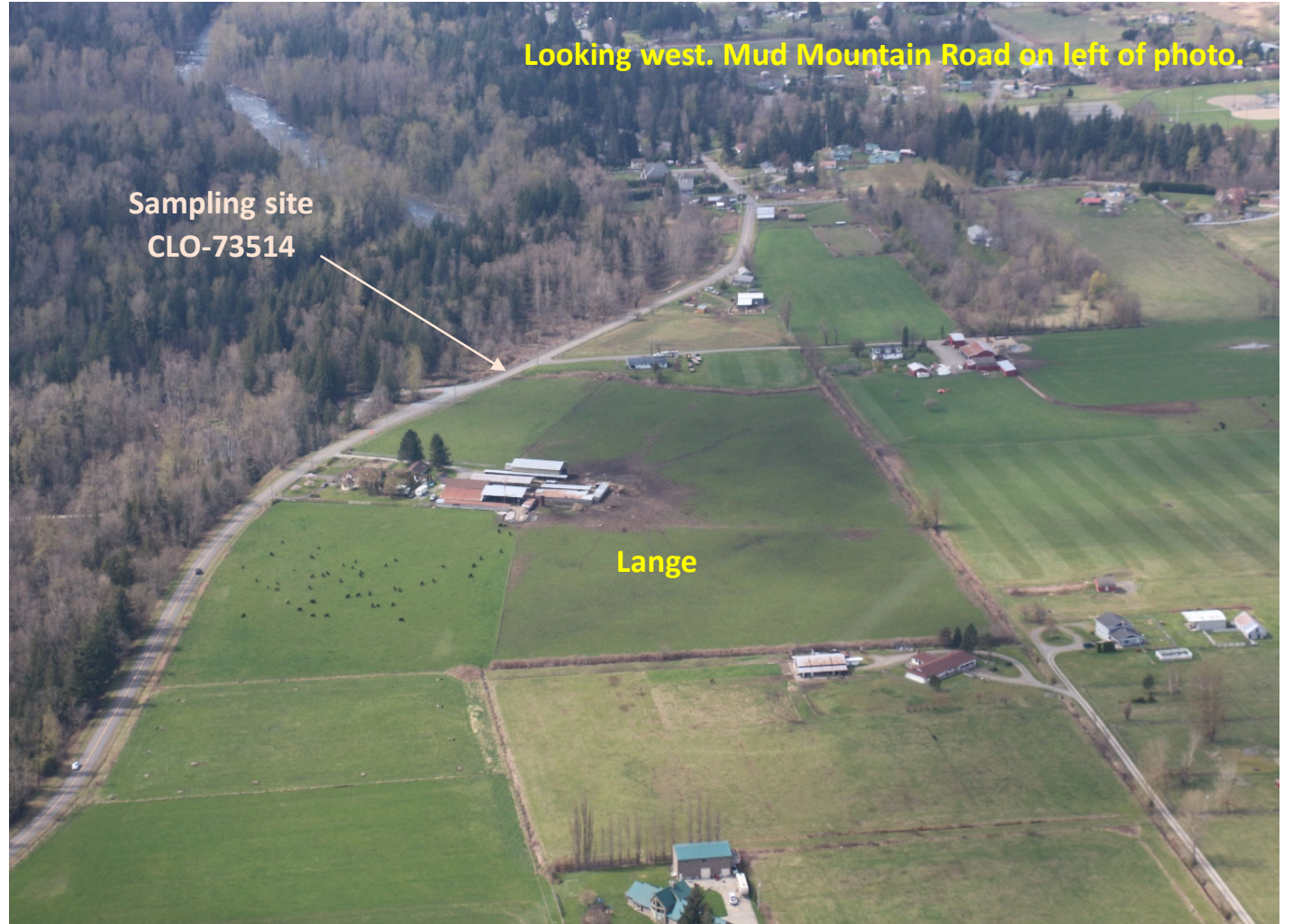
# Sampling of White River watercourses

- High or very high geomeans at most watercourses
- Low geomeans at “reference” creeks
  - Each reference site with at least one result  $> 320$  cfu/100 mL
- Hydrologic influences
  - Highest results in storms; the earlier in the wet season, more EC seen
- Rum/Cow  $>$  Human
  - Sites with highest geomeans ( $> 1000$  cfu/100 mL) have strong evidence of presence of ruminant or cow waste (MST markers, visual evidence), weak evidence of human waste









# CLO-73514

- Watercourse flows ~ late October to early June
- n = 14 (last two wet seasons)
- Geomean *EC* = 1071 cfu/100 mL
- 9 of 14 results: *EC* > 320 cfu/100 mL
- Hu-2: not detected in 7 of 7 samples analyzed
- Rum-2: detected in 6 of 7 samples analyzed
  - in 4 of 7, Rum-2 > “screening threshold”
- Cow-3: at high level in 1 of 6 samples analyzed
  - in 5 of 6, Cow-2 not detected; inhibitors detected in two samples
  - analyses on two samples pending

# Upcoming wet season

- Screen MS4 for bacteria sources (described above)
  - Second Creek sites (Pussyfoot?)
  - Follow up on previous concerns
- Streams/watercourses:
  - Drop smaller watercourses from inclusion in standard round (\$)
  - Drop reference creeks; add upper Boise site as reference
  - Roughly seven events, ~once a month from Oct/Nov-April/May
  - Add “stream” sites in upper Second Creek basin (Ecology)



