

Recovery Plan Implementation & Threat Status

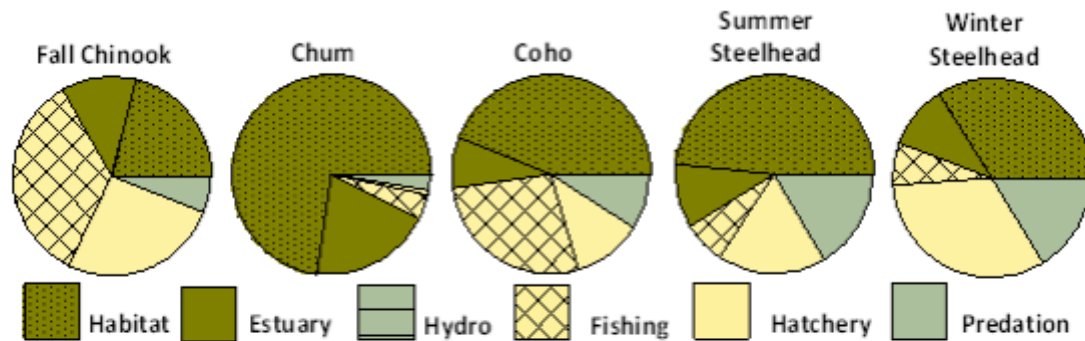


Figure L-21. Relative contribution of potentially manageable impacts on East Fork Lewis River salmonid populations.



Recovery Plan Chain of Logic

- Limiting Factors impact Salmon and Steelhead
- Threats are underlying causes of limiting factors
- Programs implement Recovery Plan actions to address threats
- Threats are effectively addressed and fish populations become viable
- Salmon and Steelhead are delisted by NOAA Fisheries
- L Columbia Salmon and Steelhead return to healthy and harvestable

EFLR Threats:

Rural & Suburban
Development

Forest
Practices

Mining

Channel
Manipulations

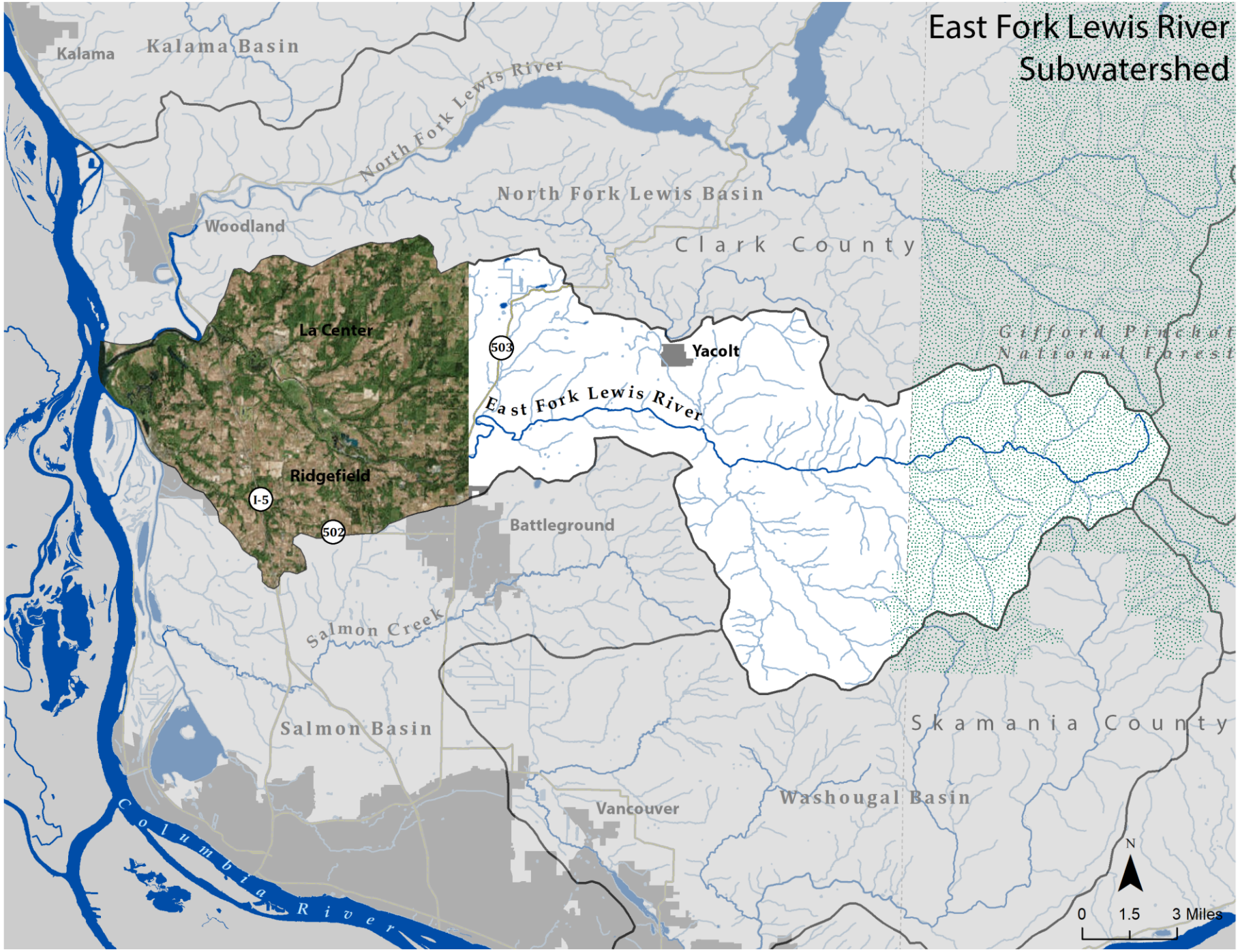
Agriculture
& Grazing

The background of the slide is a map of a river basin, likely the Mississippi River basin, showing various sub-basins and watersheds. The map is overlaid with semi-transparent colored regions: a light blue region on the left, a light green region in the center, and a light purple region on the right. The text is overlaid on this map.

Recovery Plan Program Implementation Conceptual Model:

- **Regulatory programs** protect the habitat baseline
- **Conservation programs** protect what regulatory programs cannot
- **Restoration programs** improve the baseline
- **Fish & Habitat Monitoring** show successes & areas to focus

East Fork Lewis River Subwatershed





Evaluation Process

✓ Interview program staff

✓ Identify, review, and analyze data

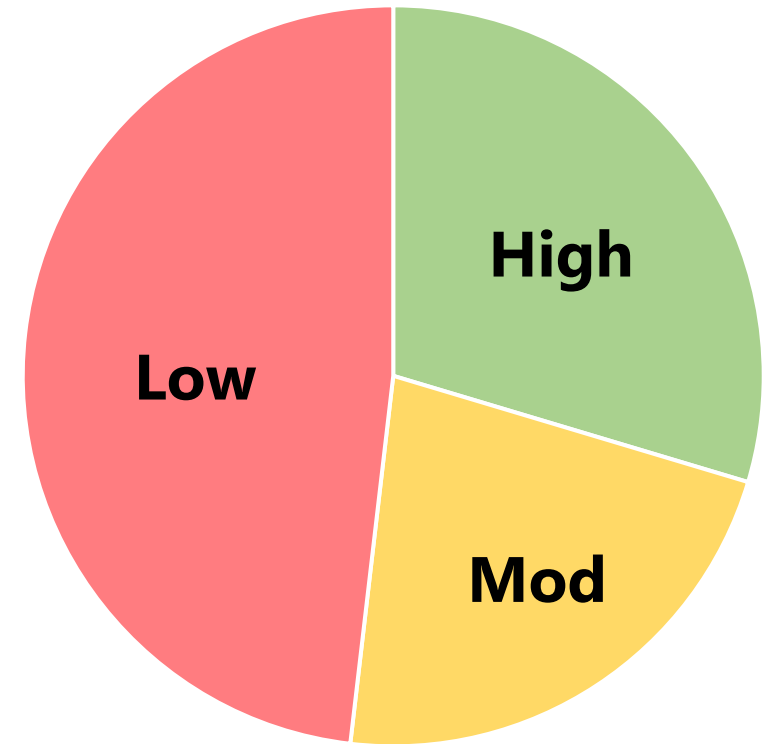
Recovery Partners Evaluated

- Clark County
- Cities (Ridgefield, La Center, Battle Ground)
- DNR
- USACE
- NMFS
- USFS Gifford Pinchot
- WDFW
- Ecology
- Storedahl
- RCO
- Clark Public Utilities
- Columbia Land Trust
- LCFRB

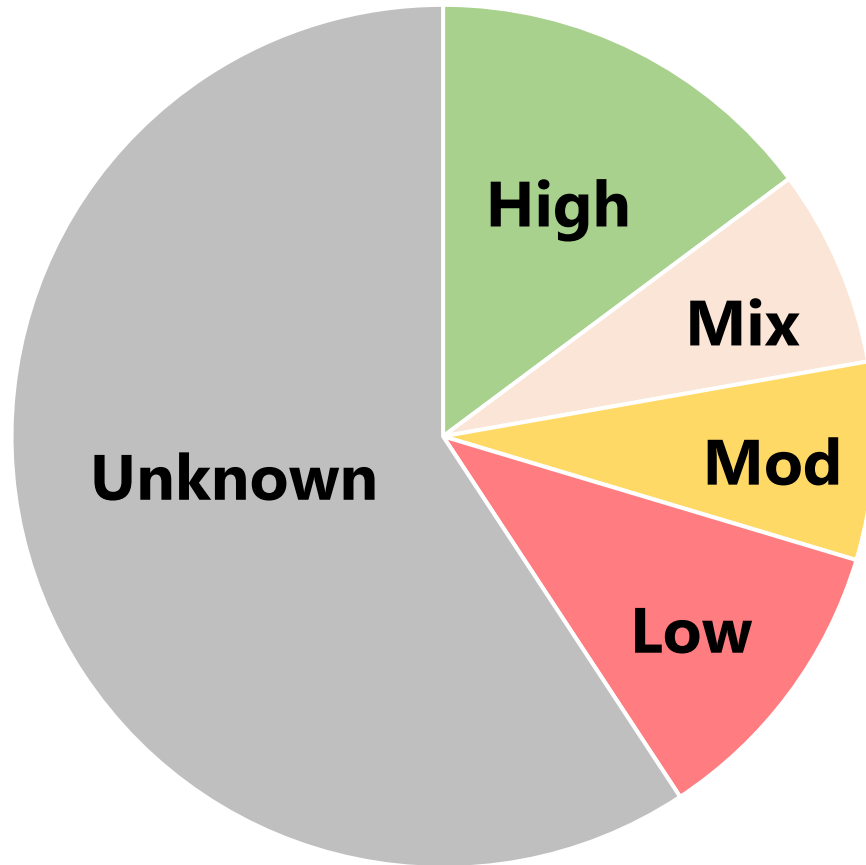
Q1. To what degree do programs use the Recovery Plan to help guide their program?

✓ High

- Habitat Grant Funding Administration
- Land Acquisition, Stewardship, & Management
- Habitat Restoration & Enhancement
- Shoreline Master Program
- Stormwater Discharge
- Ecology Water Resources
- GPNF Land & Resource Management Plan

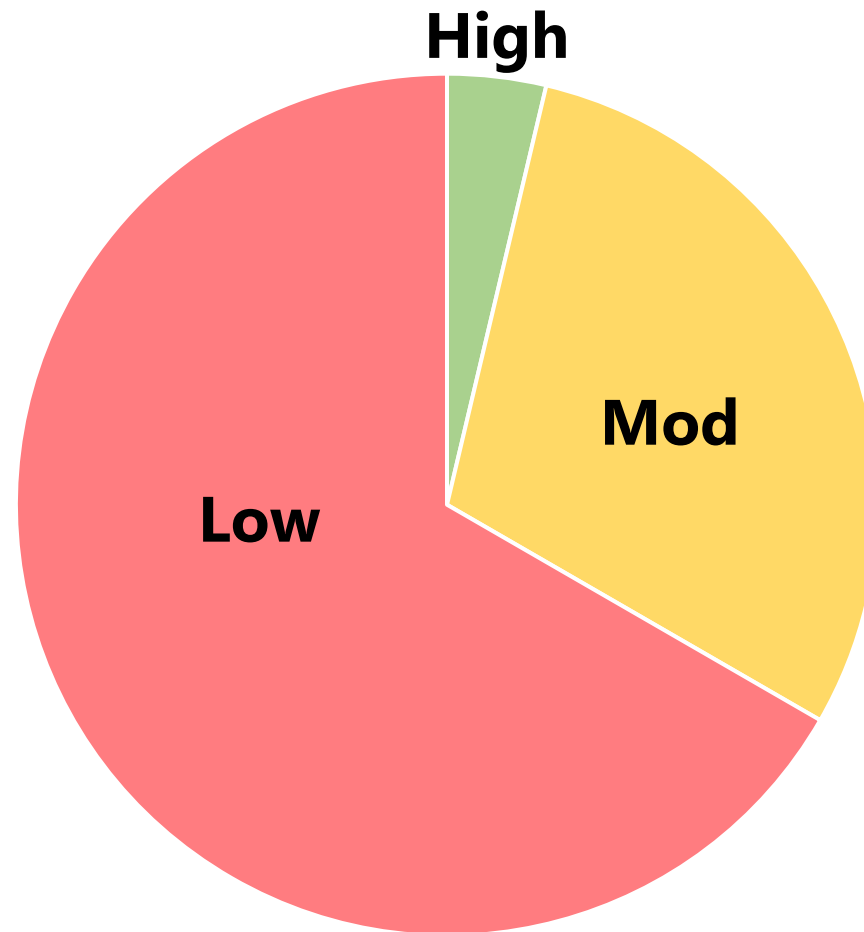


Q2. Are Programs Meeting the Expectations of the Recovery Plan?

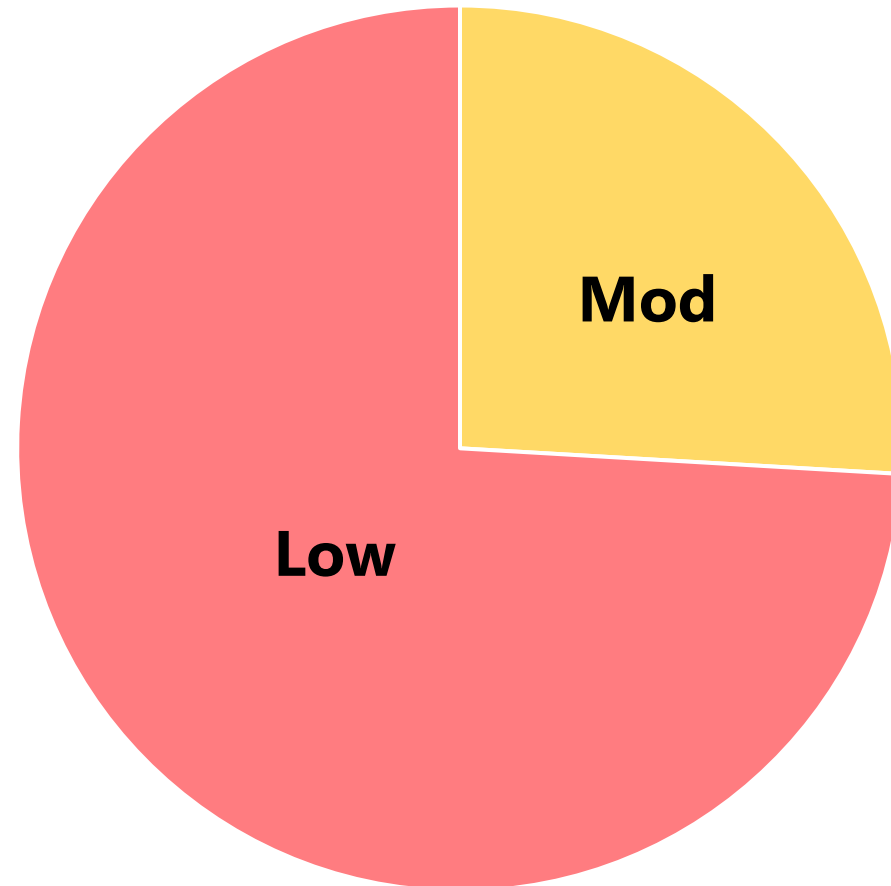


“Prevent floodplain impacts through land use controls and Best Management Practices.”

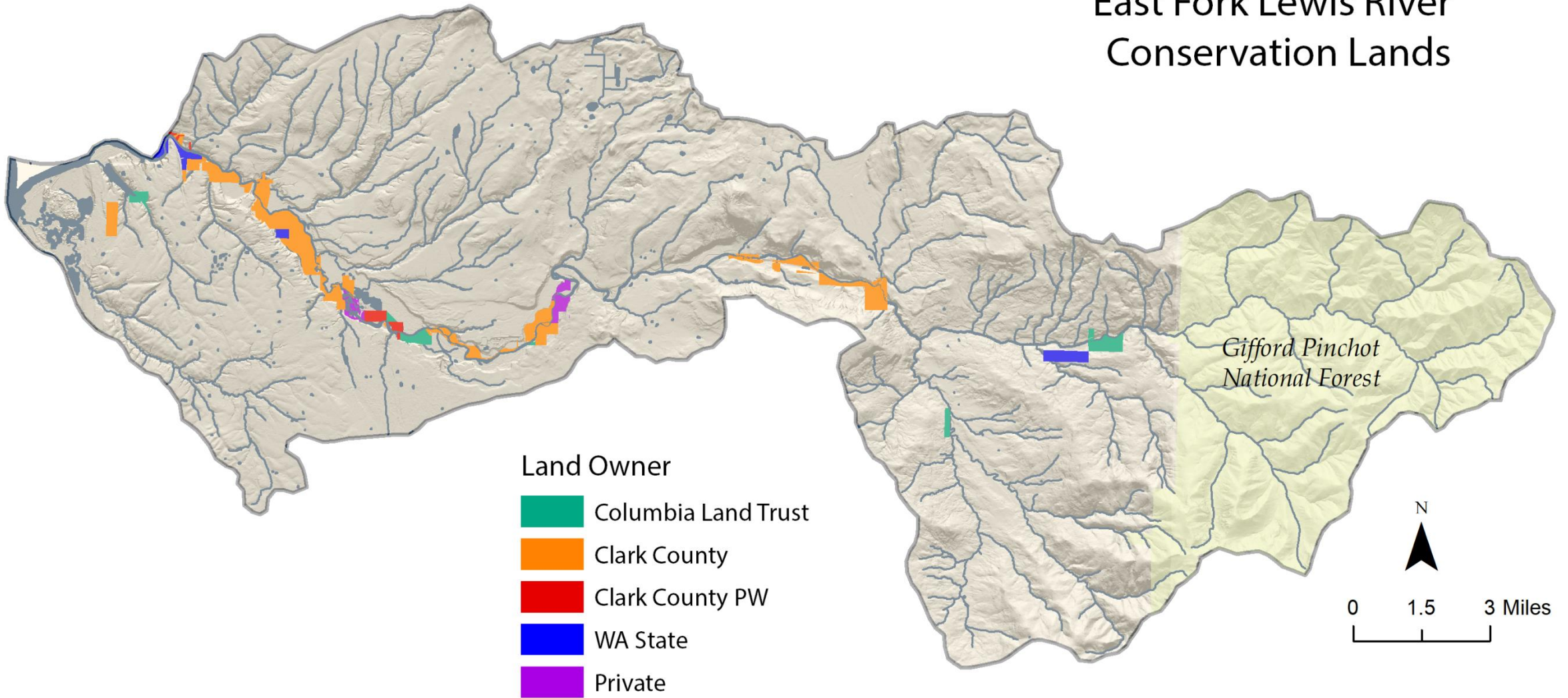
Q3. To what degree do programs maintain data that help demonstrate the trajectory of threats?



Q4. To what degree do programs perform effectiveness monitoring to ensure the program is helping to meet Recovery Plan objectives?

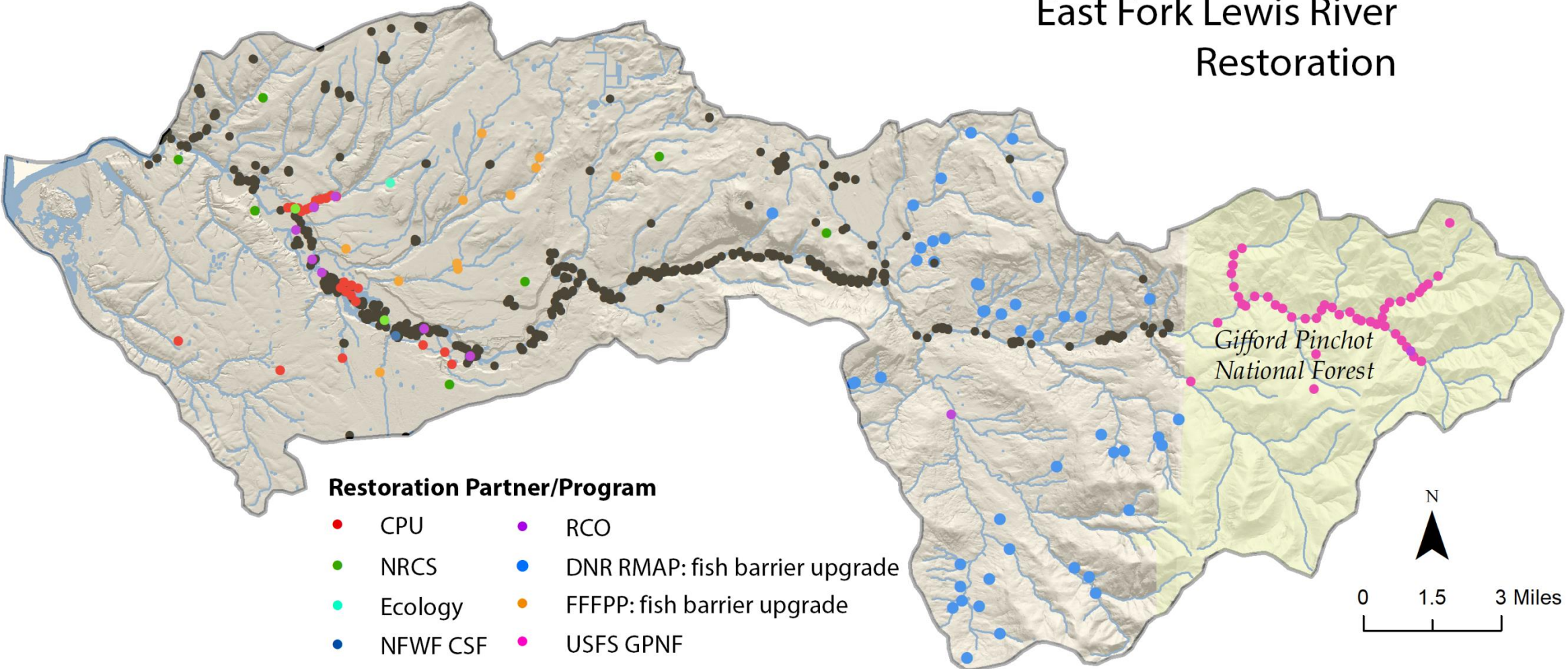


East Fork Lewis River Conservation Lands

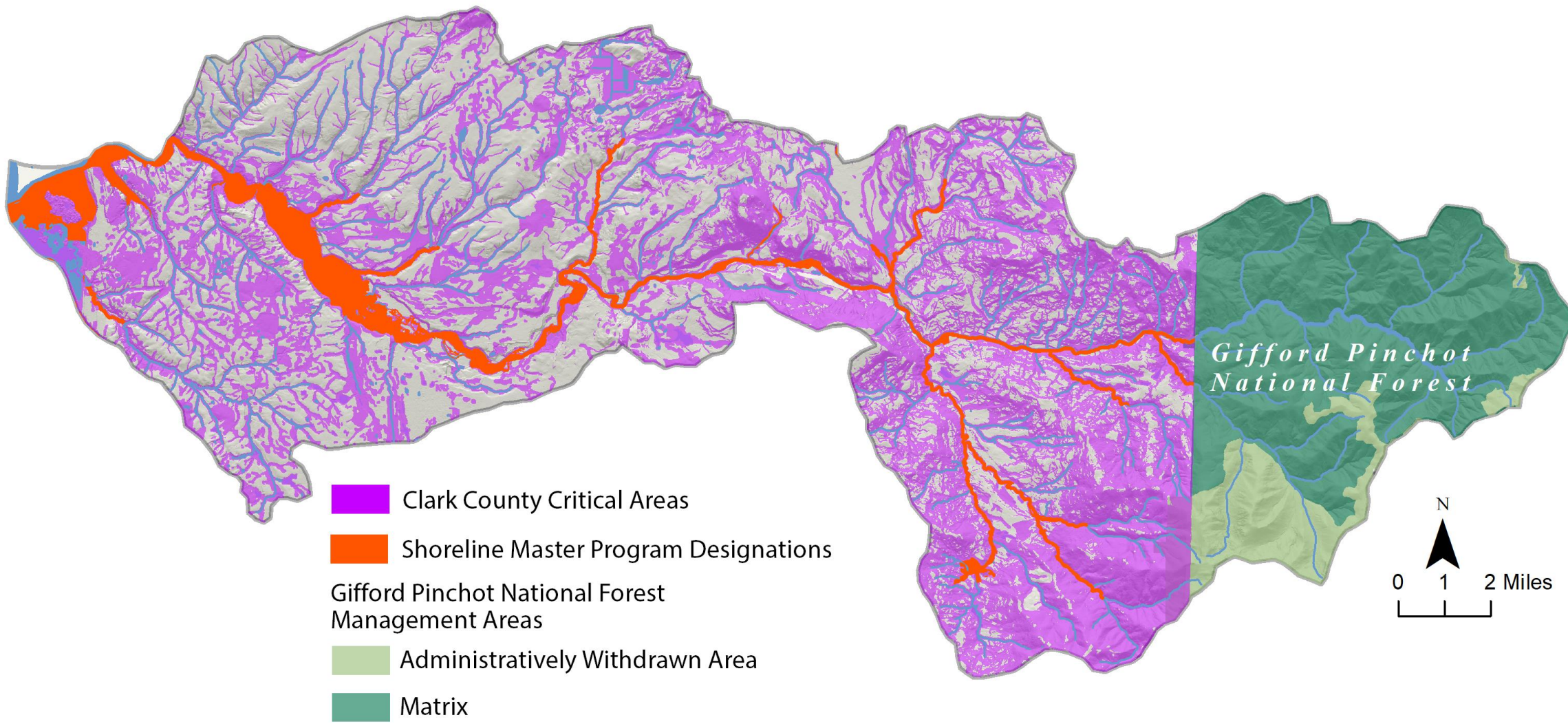


(Acquisition data from Clark County and CLT correspondence, Restoration location data from PRISM, SalmonPort, DNR RMAP, FFFPP, Clark Public Utilities, LCFRB, USFS, Noxious Weed Board)

East Fork Lewis River Restoration

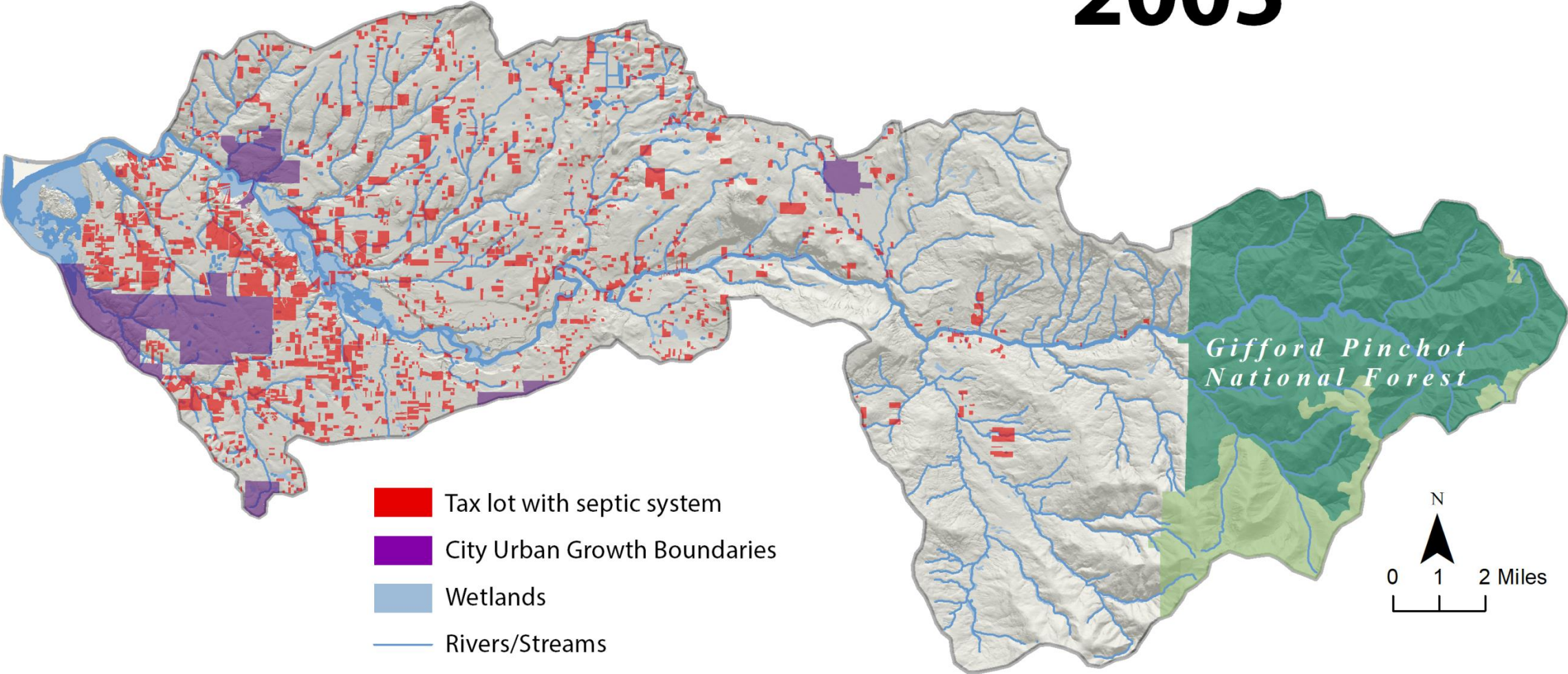


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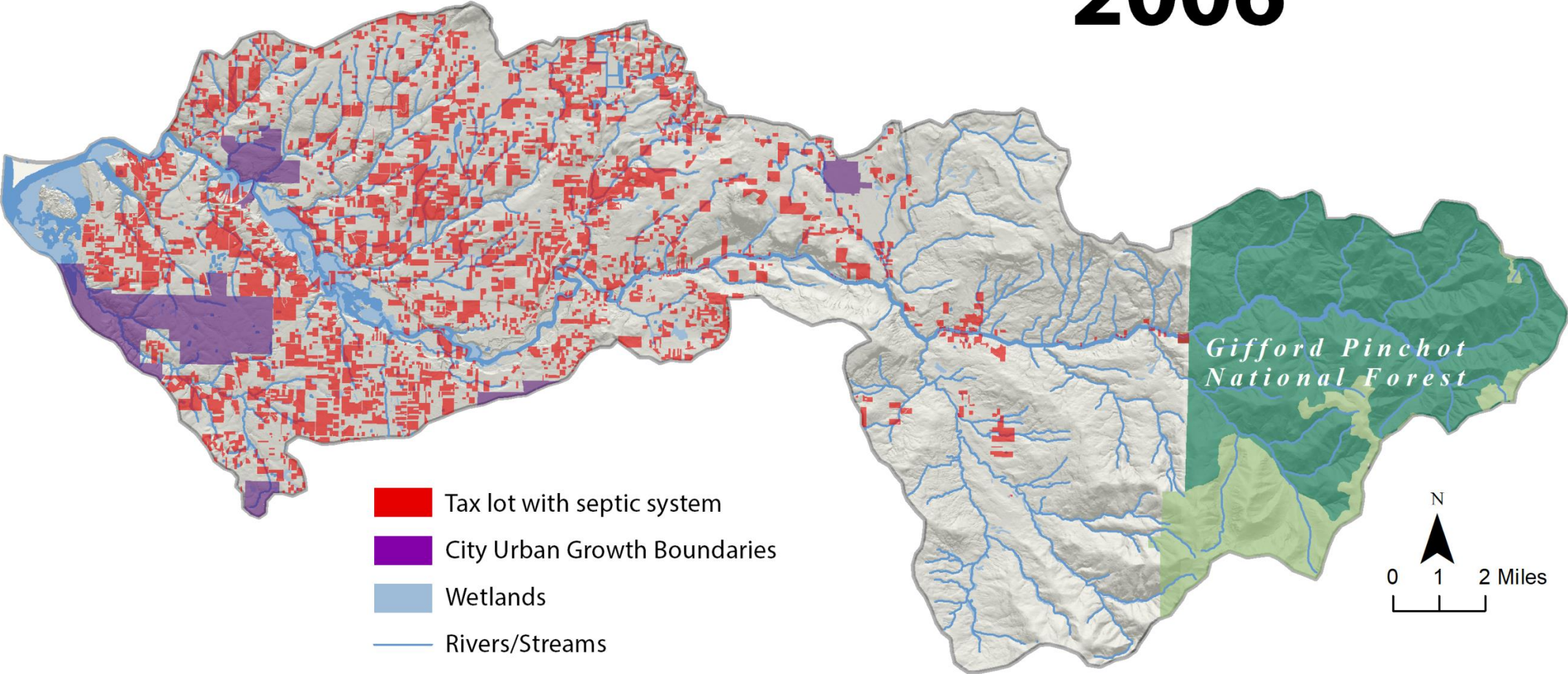
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- City Urban Growth Boundaries
- Wetlands
- Rivers/Streams

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Management Areas
- Administratively Withdrawn Area
 - Matrix



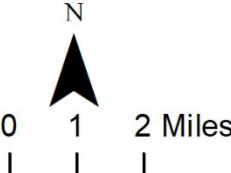
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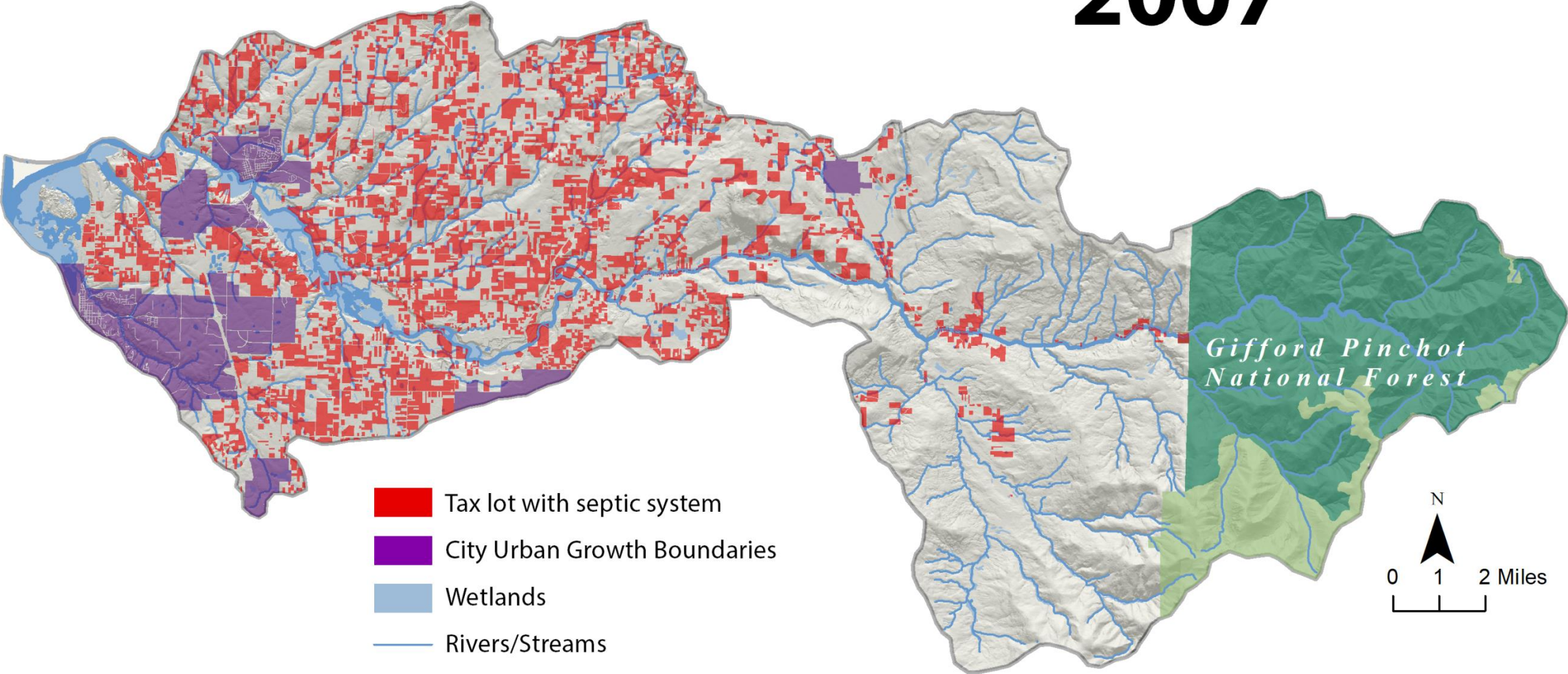
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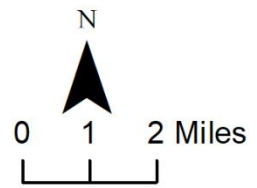
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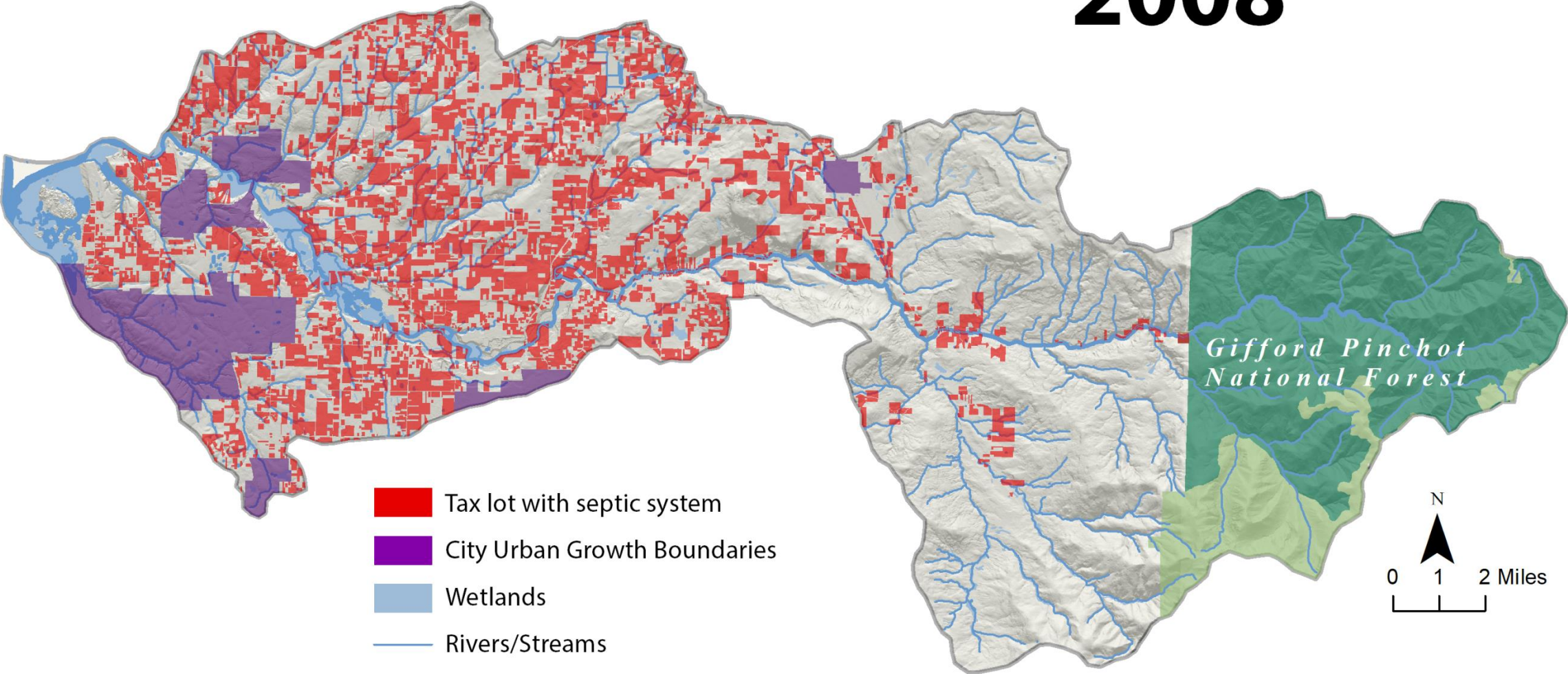
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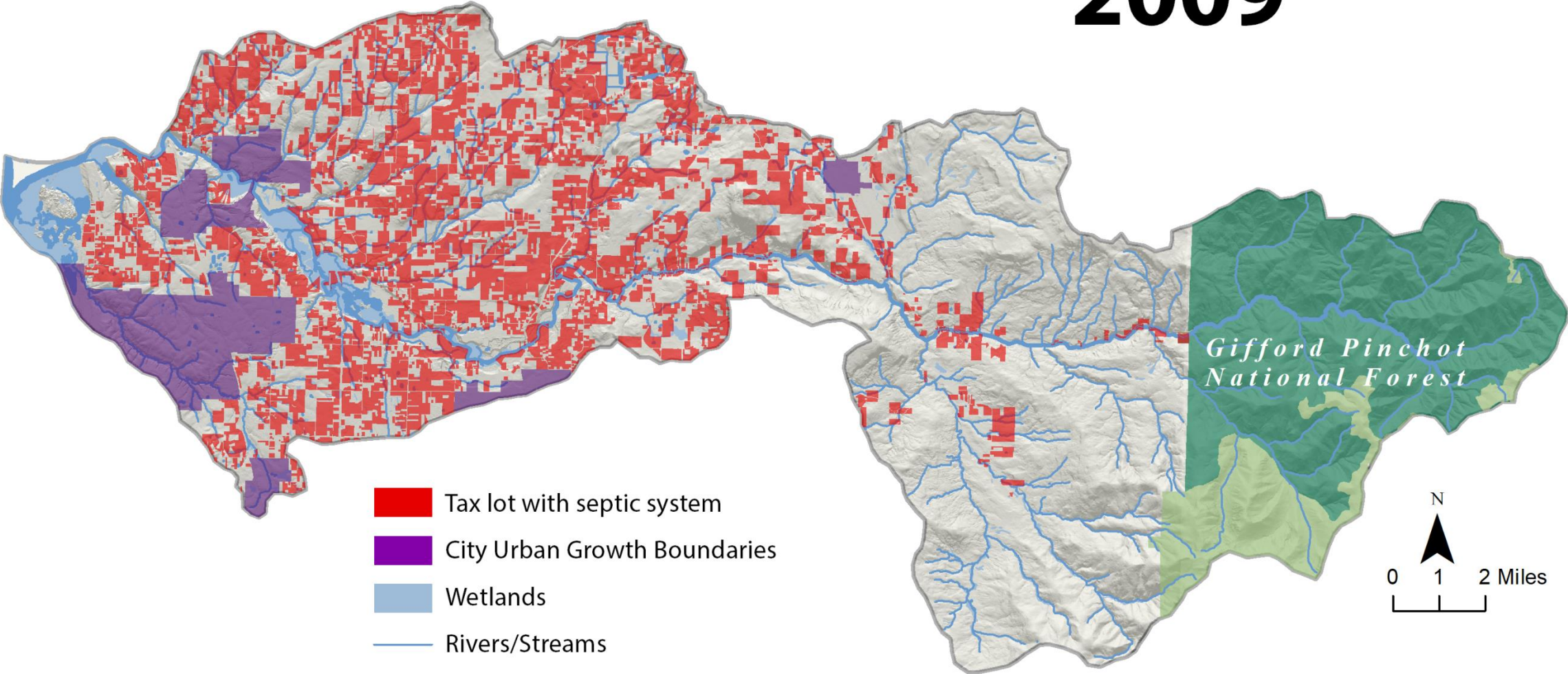


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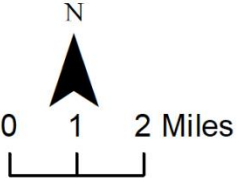
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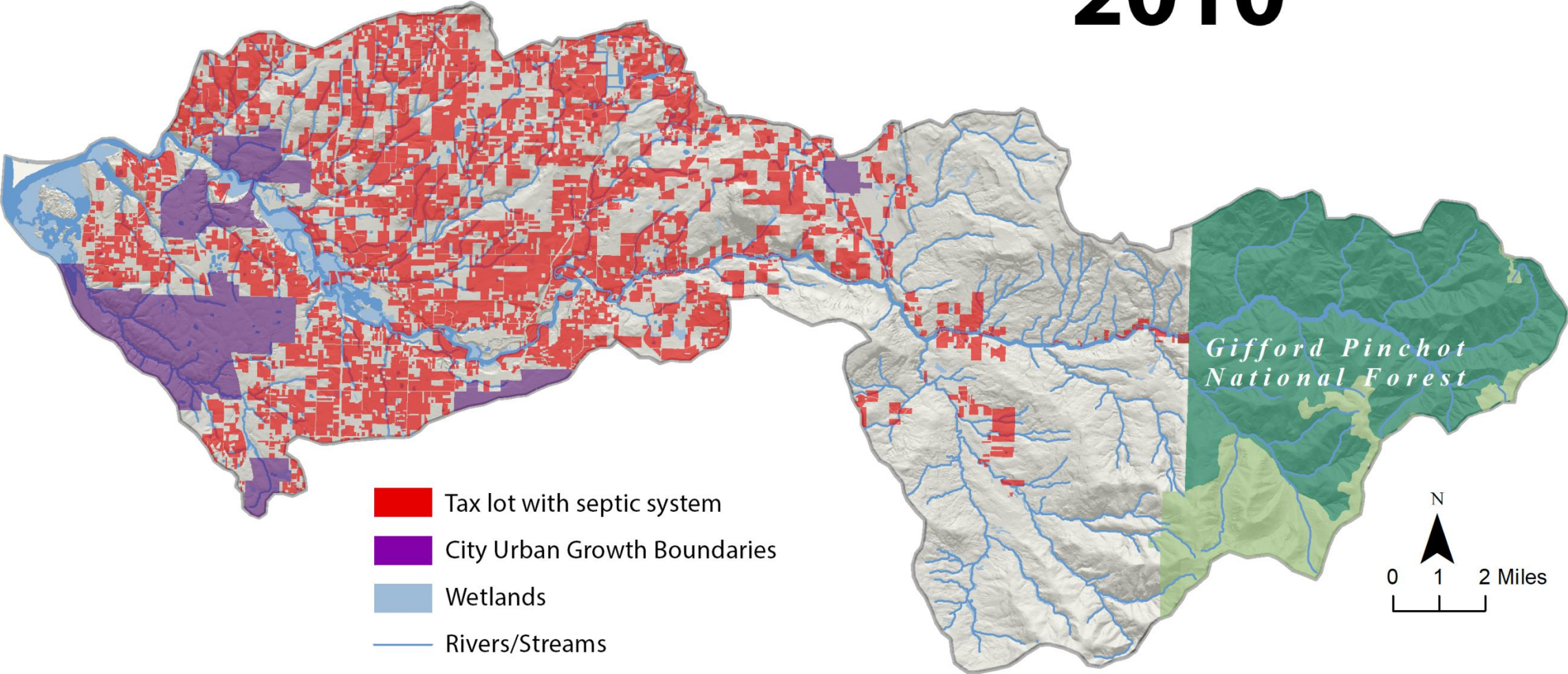
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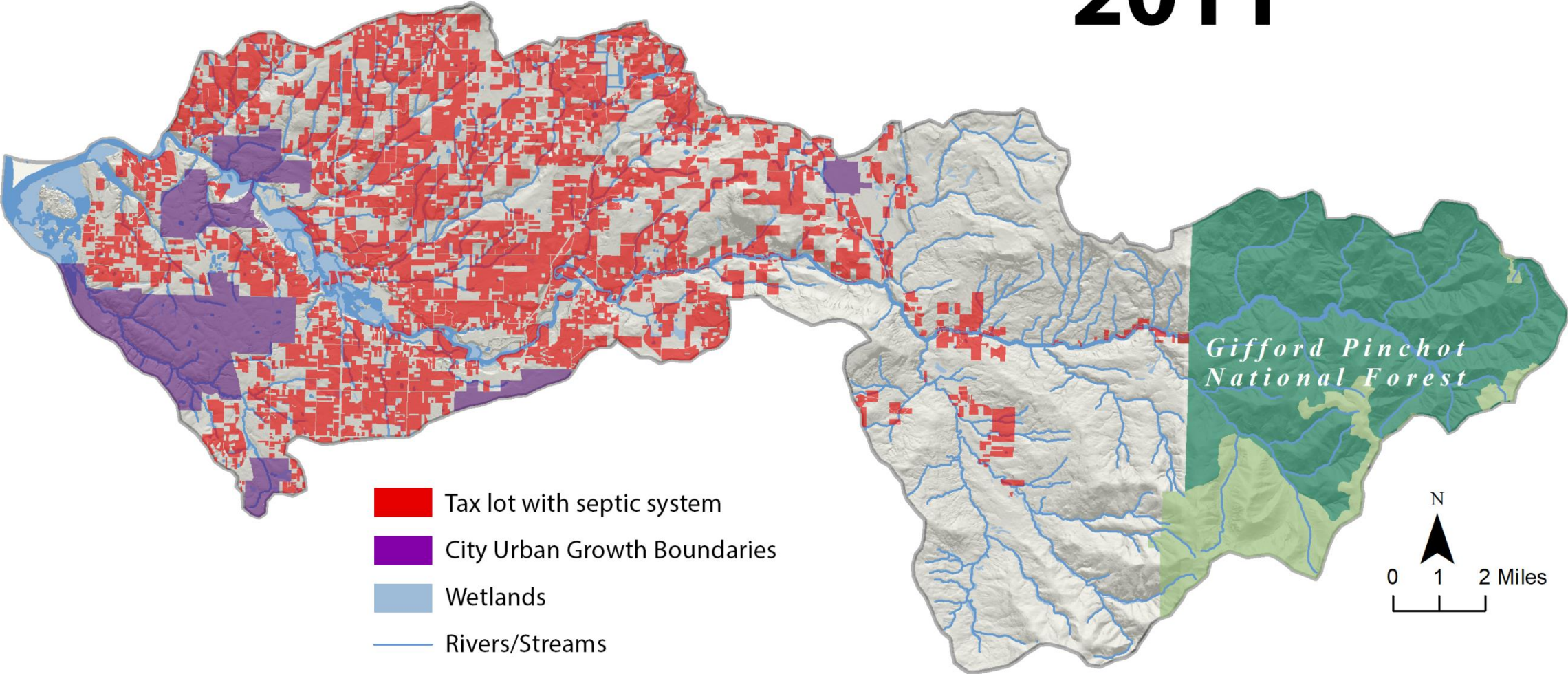
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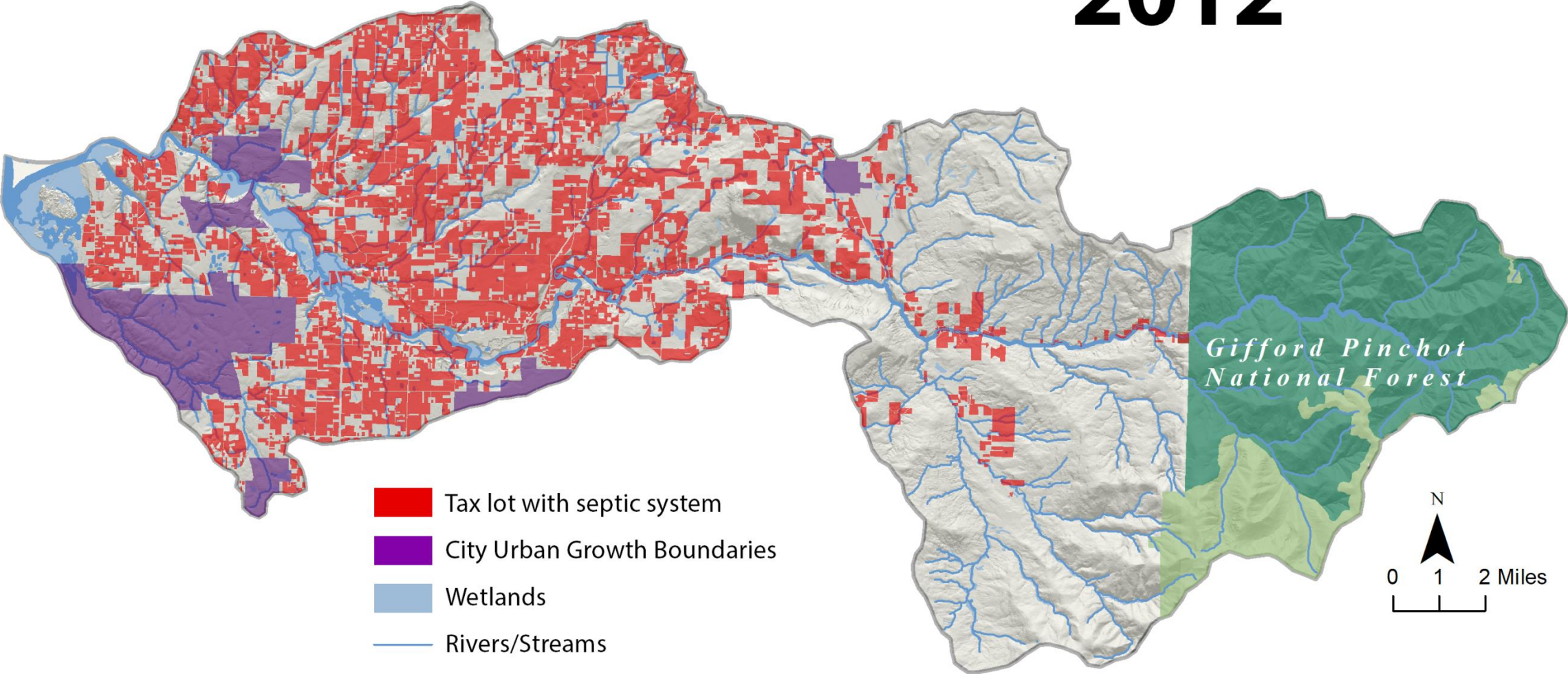
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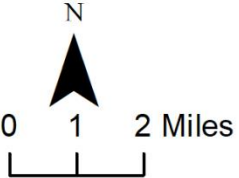
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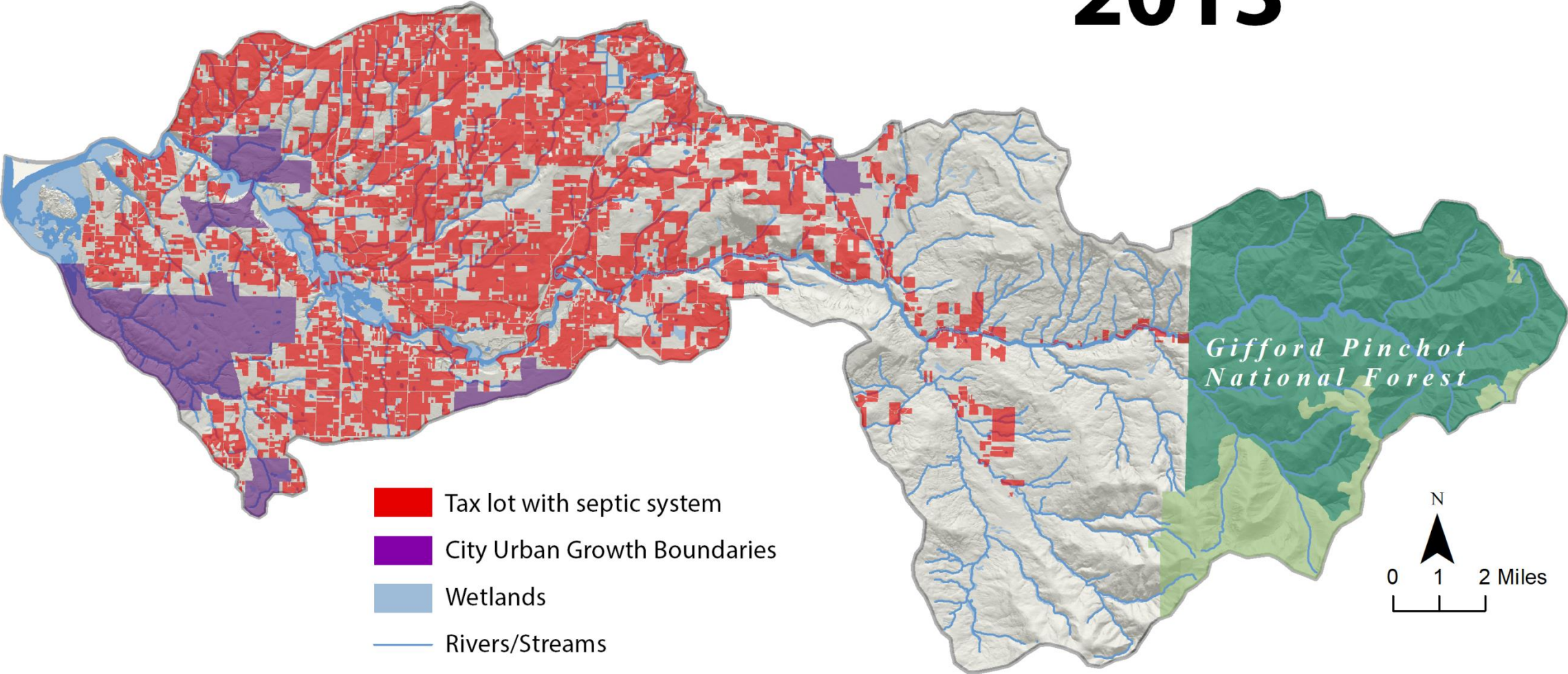






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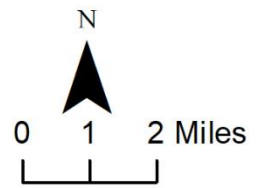
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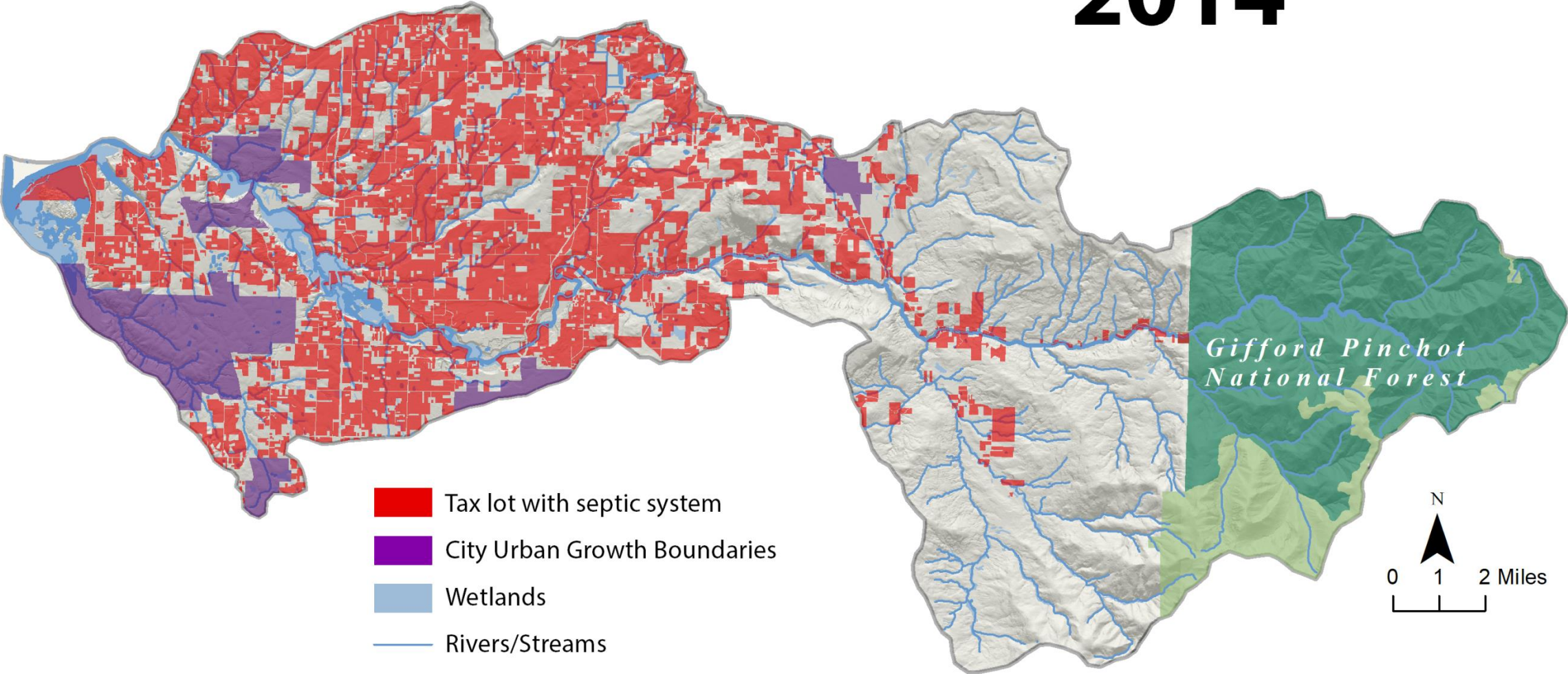
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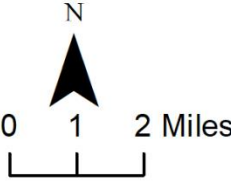
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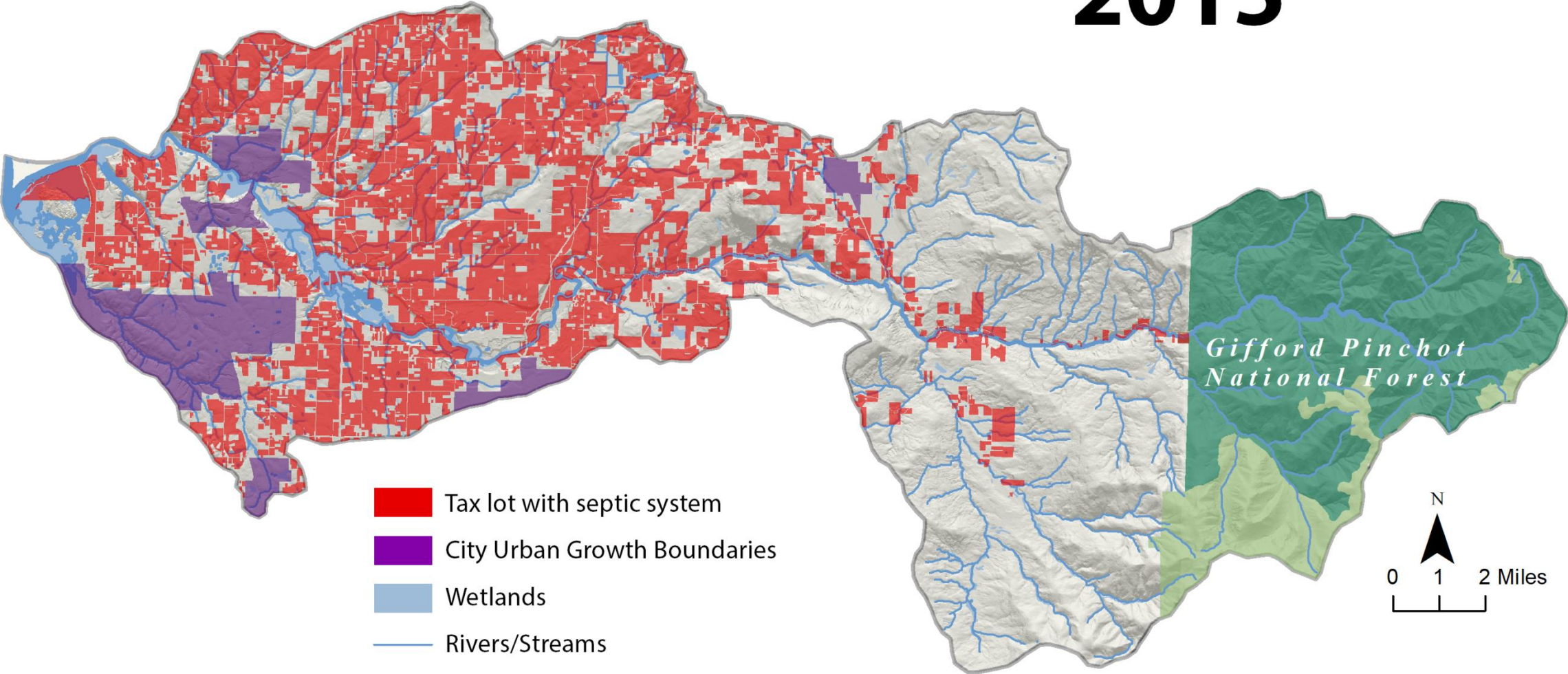
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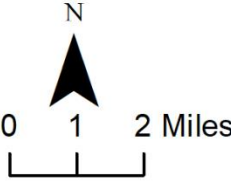
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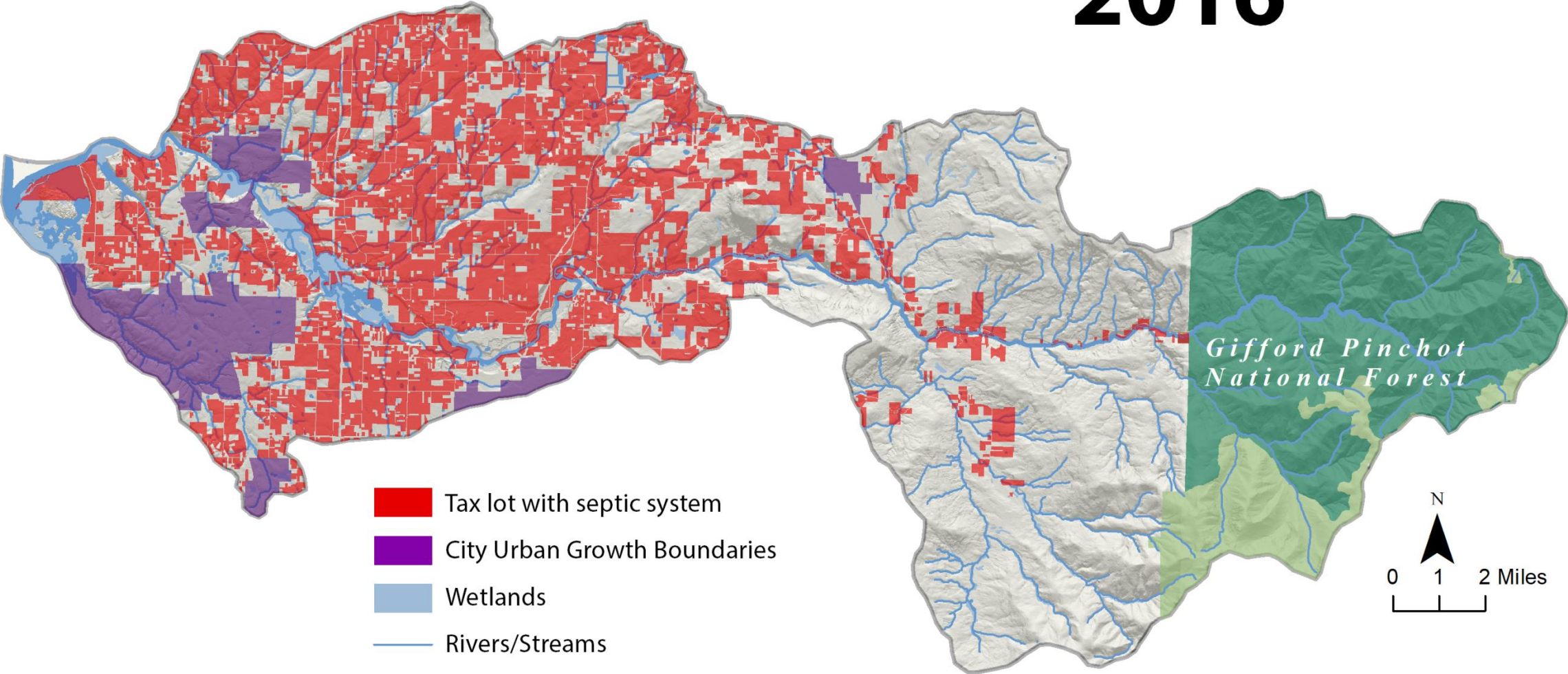
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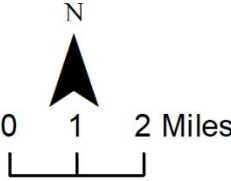
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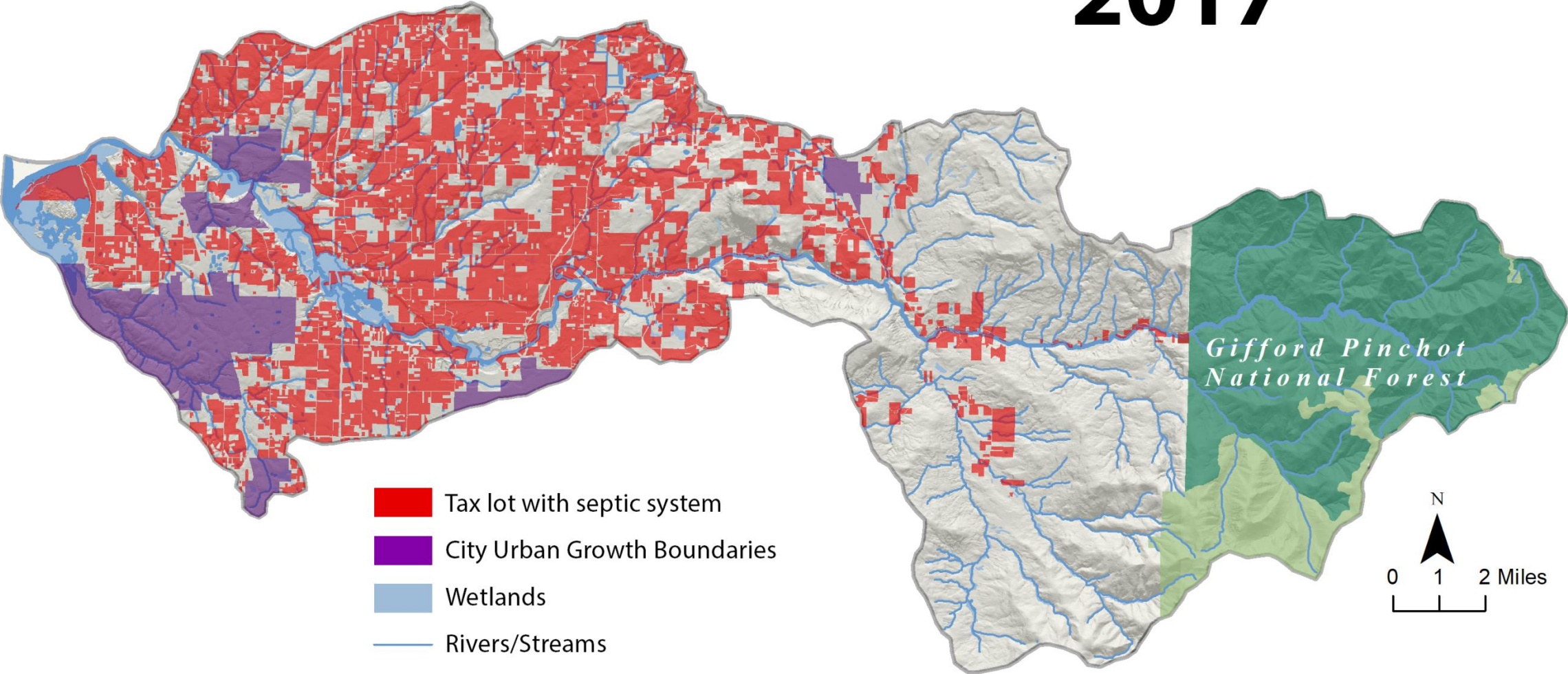
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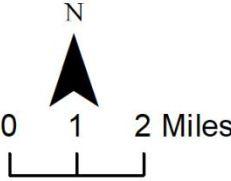
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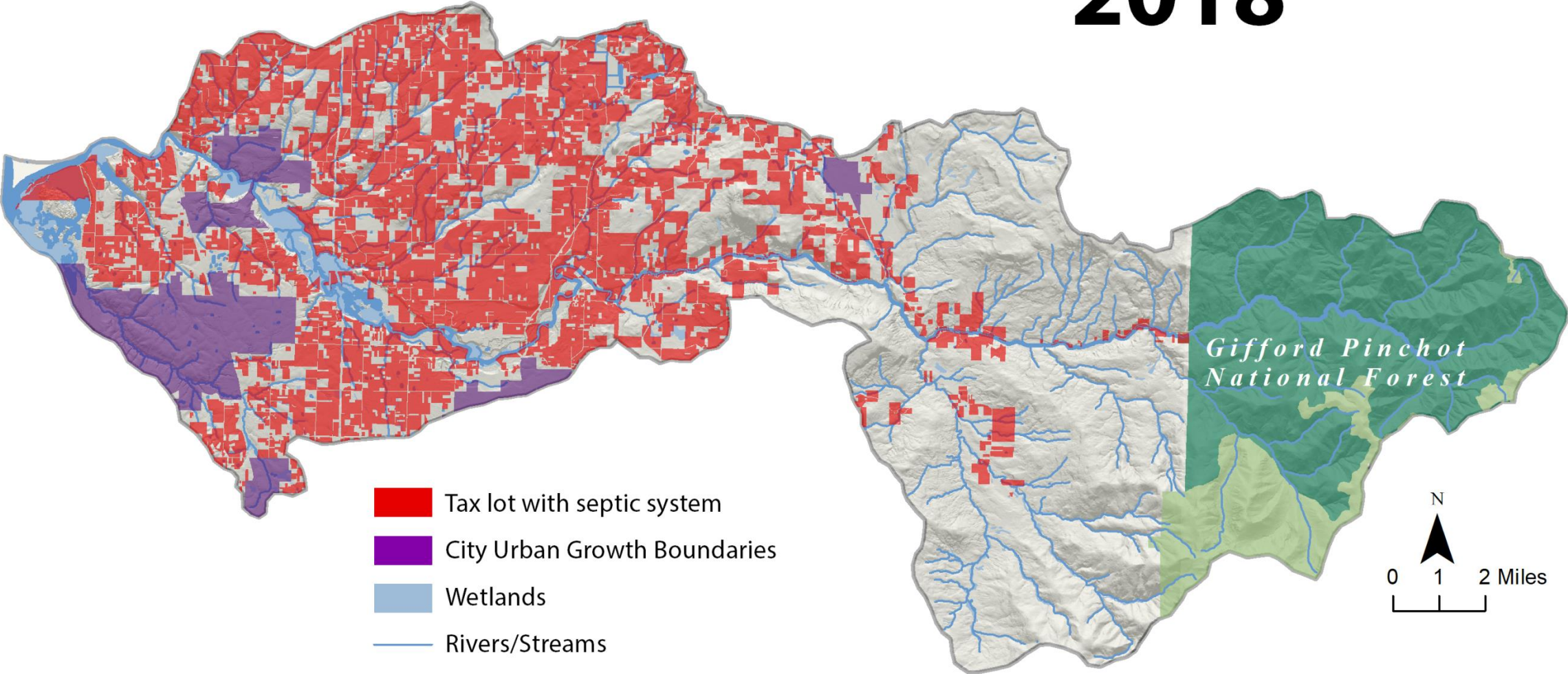
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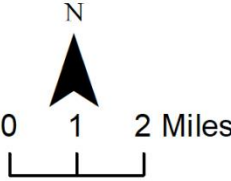
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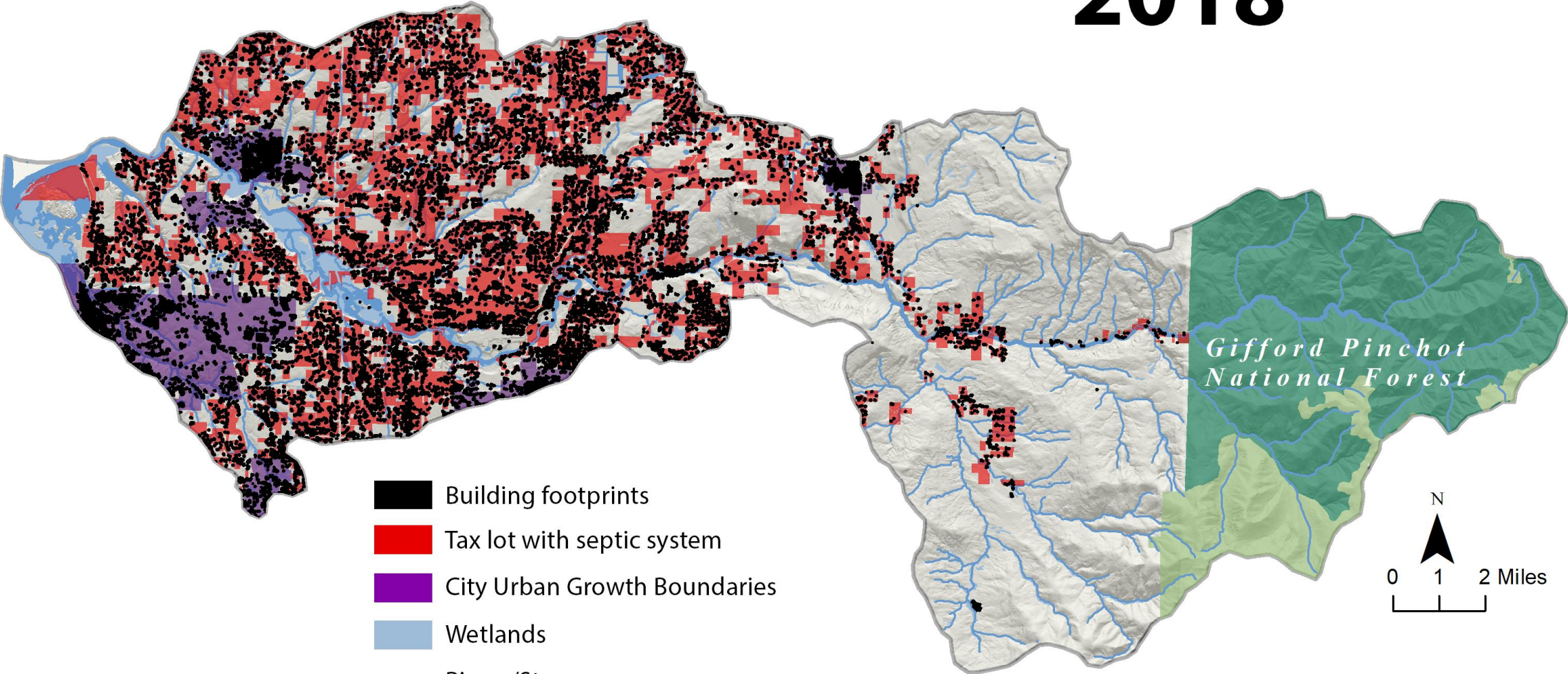
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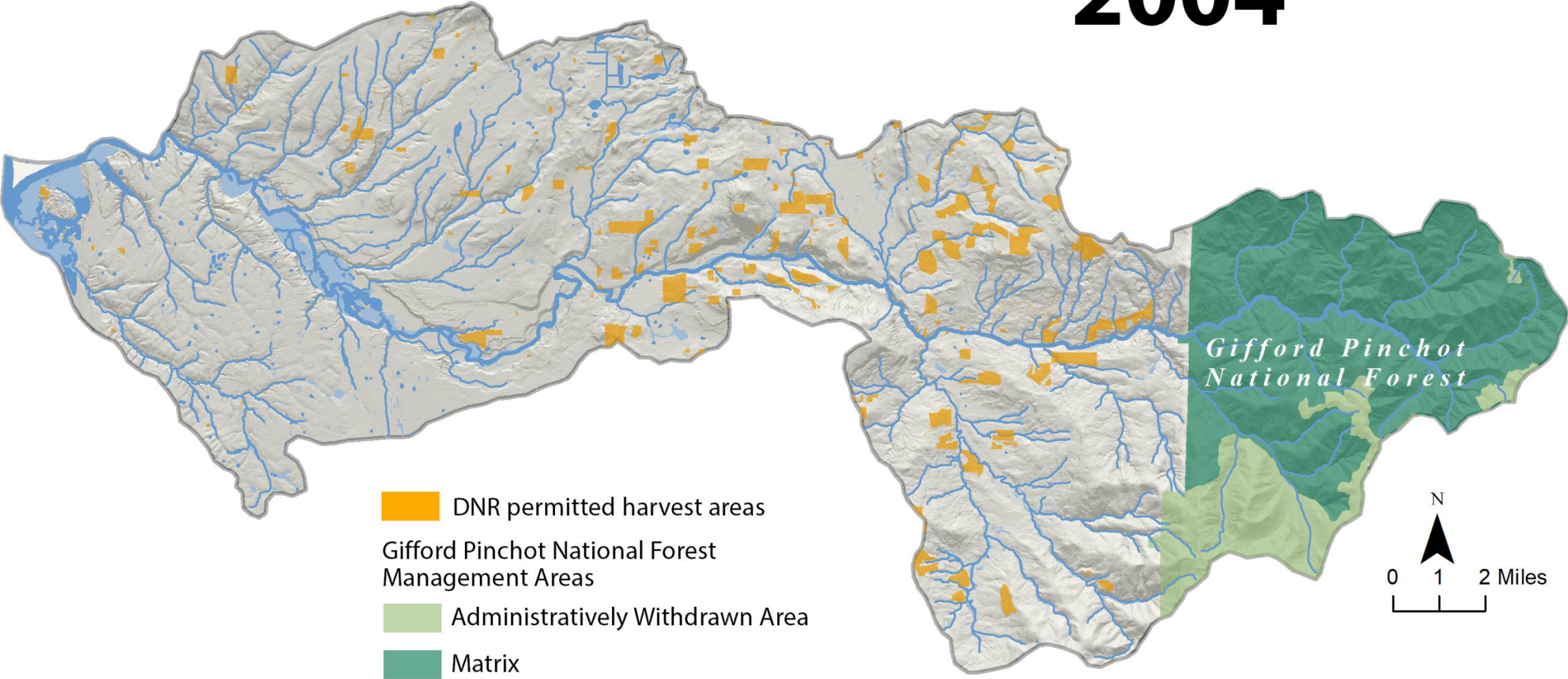





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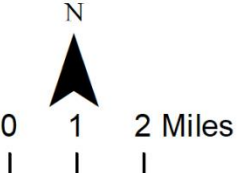
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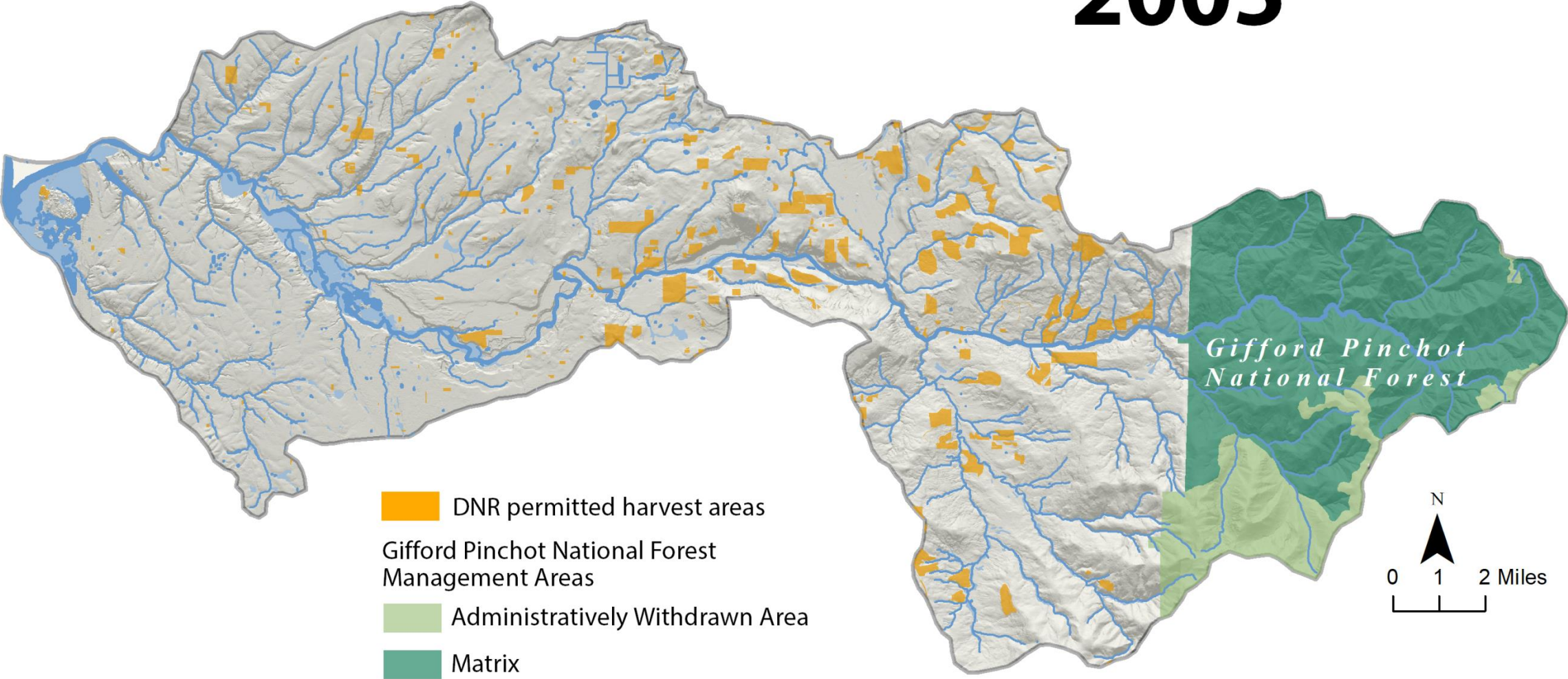





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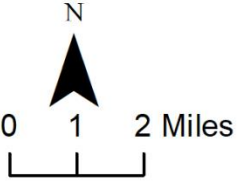


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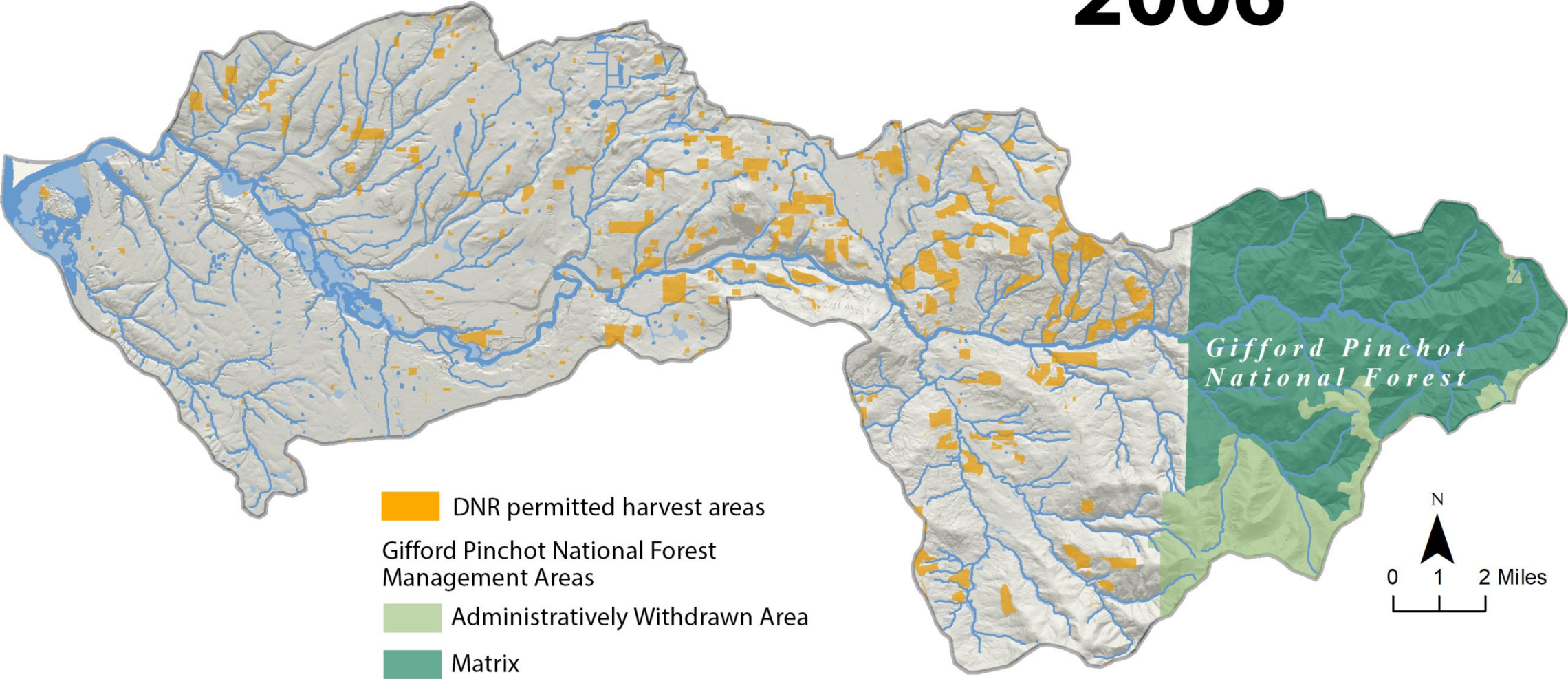


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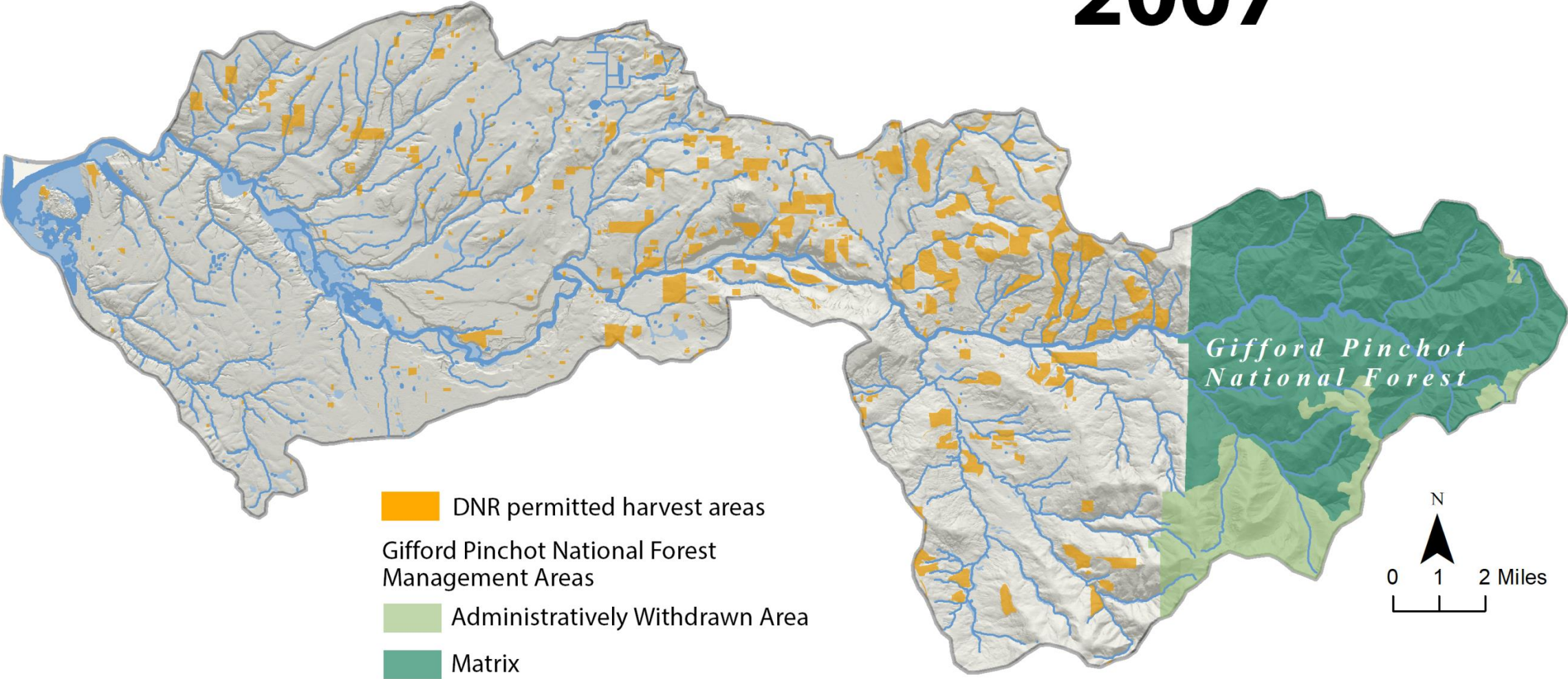
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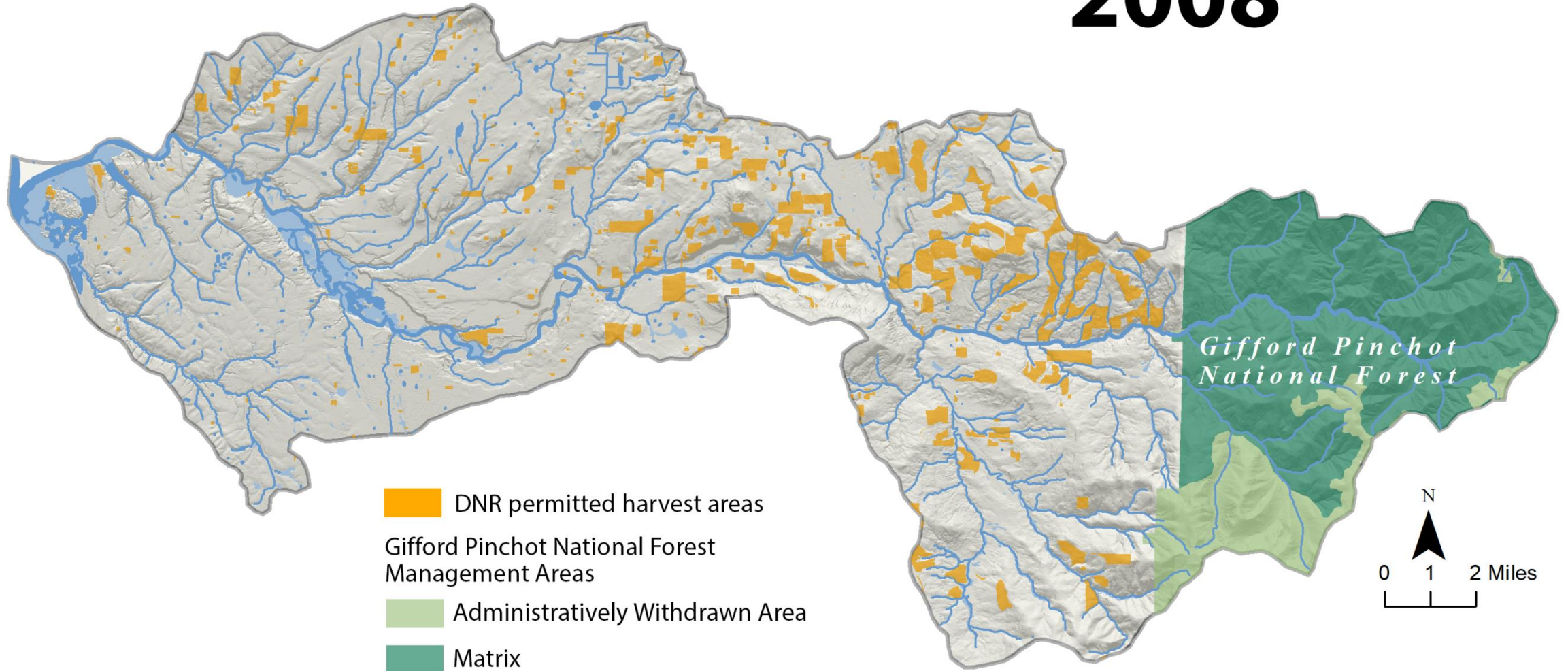
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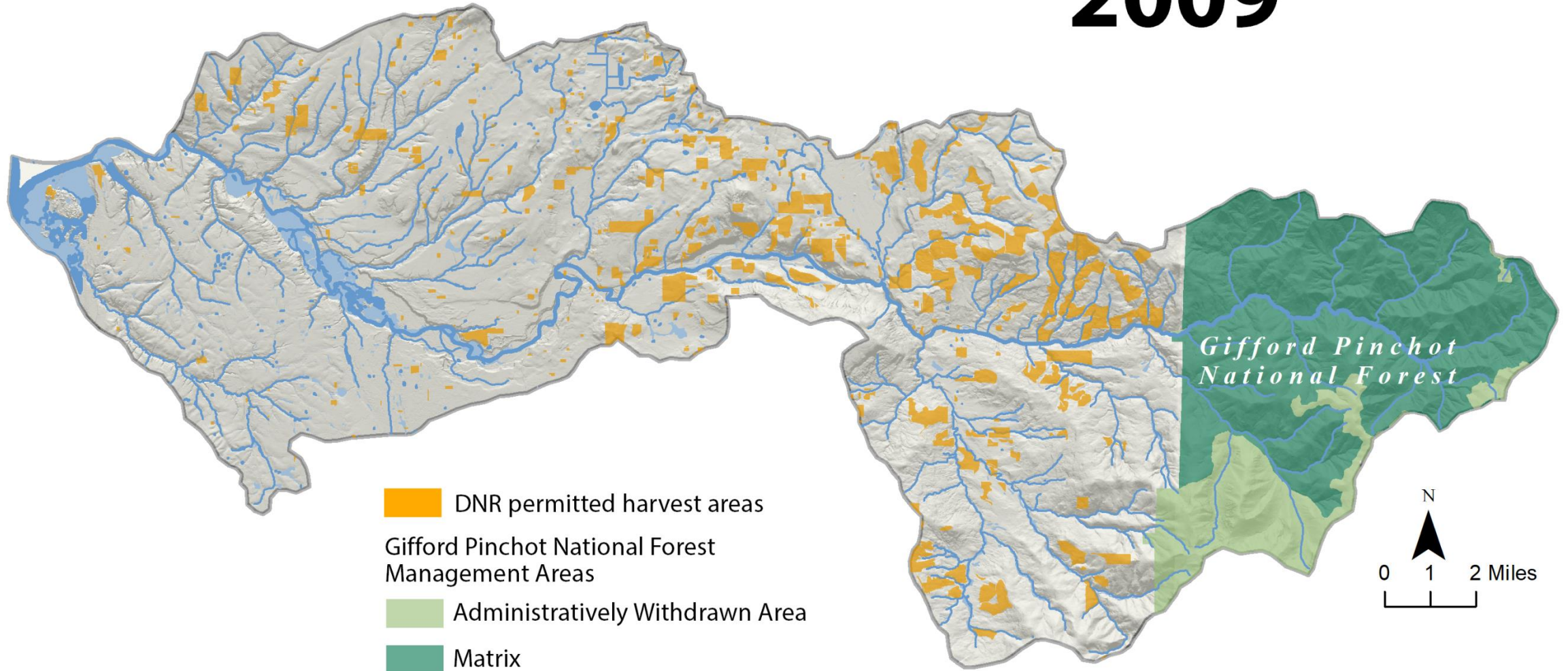
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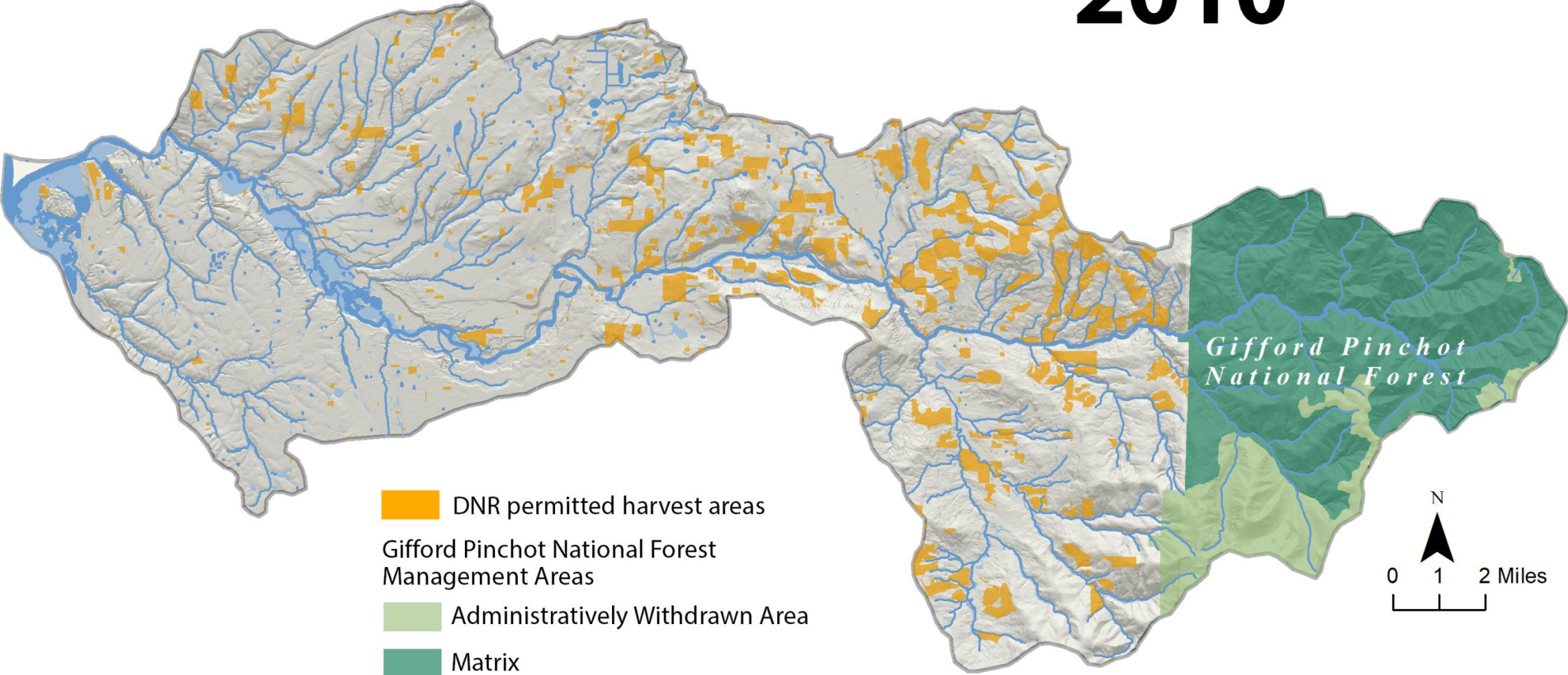
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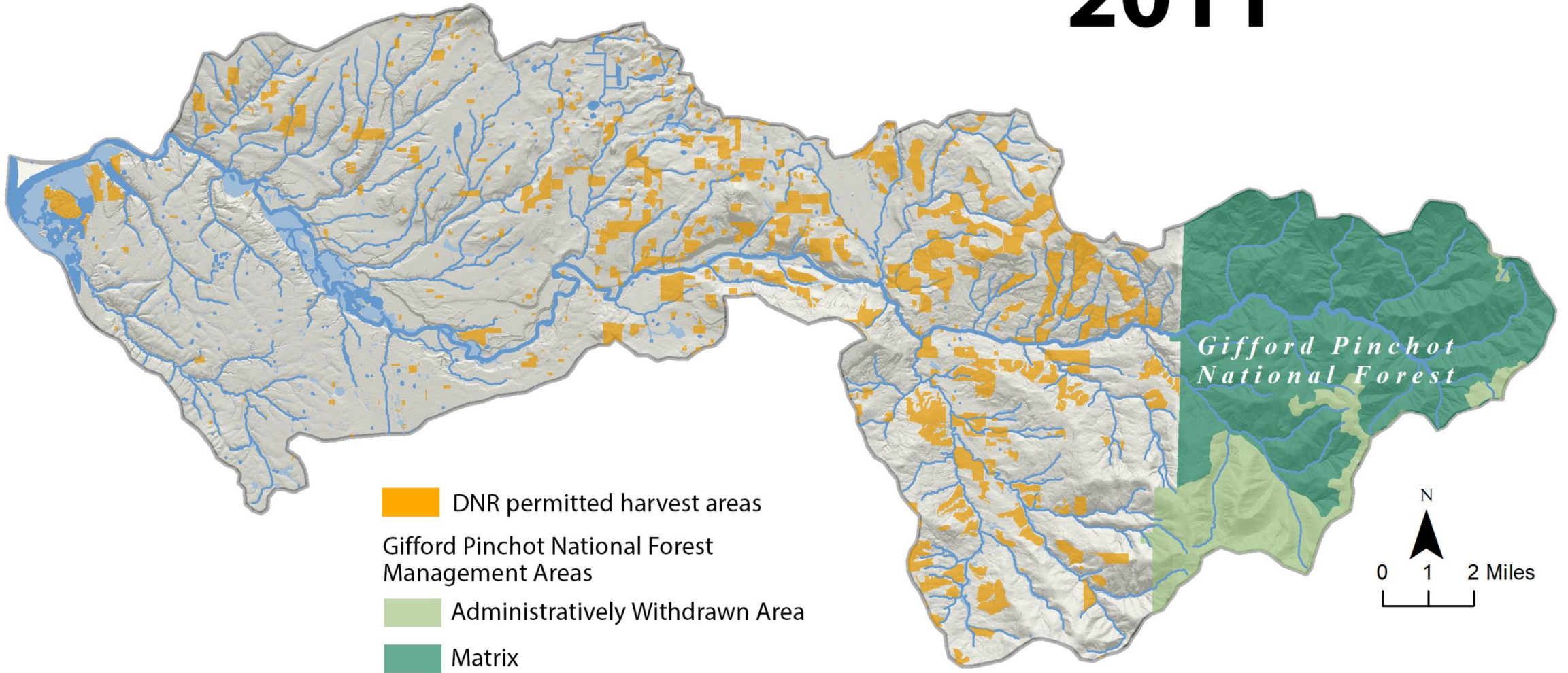
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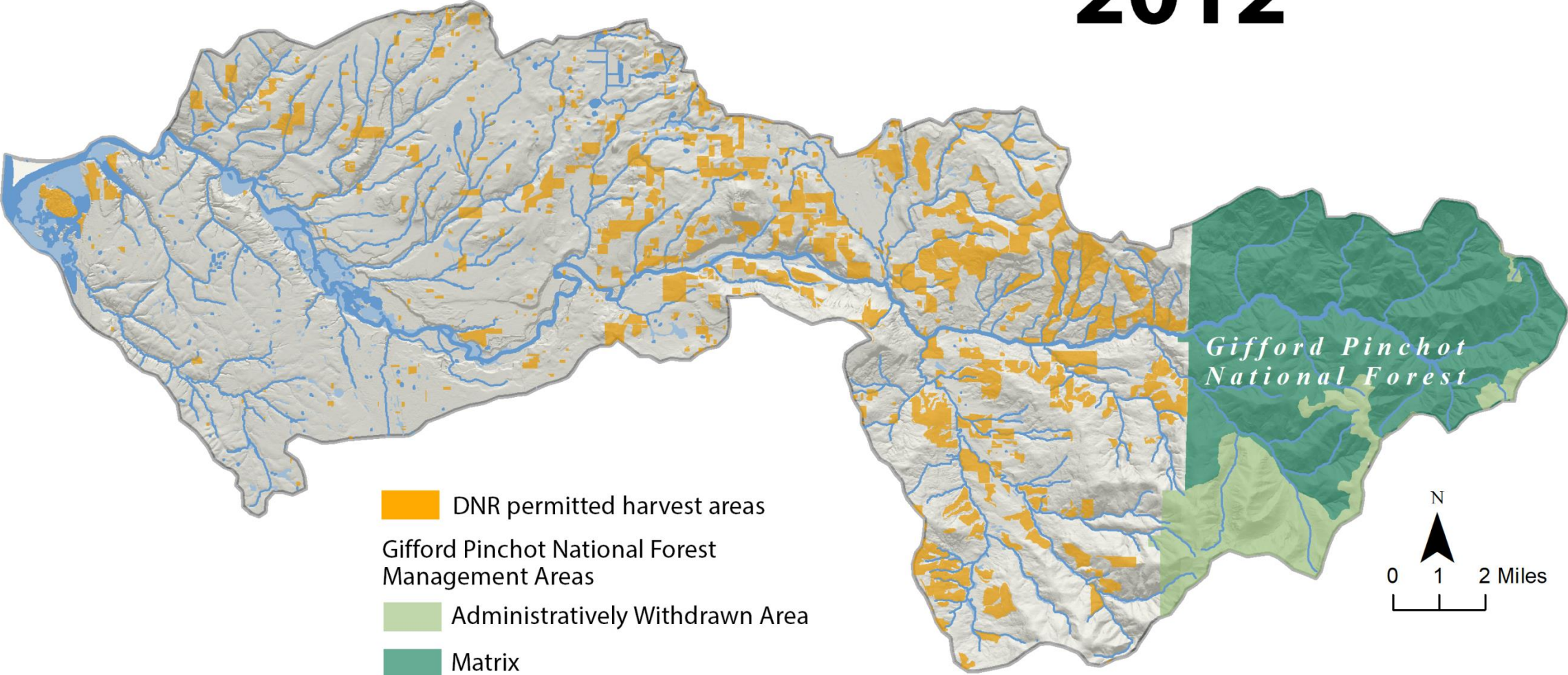
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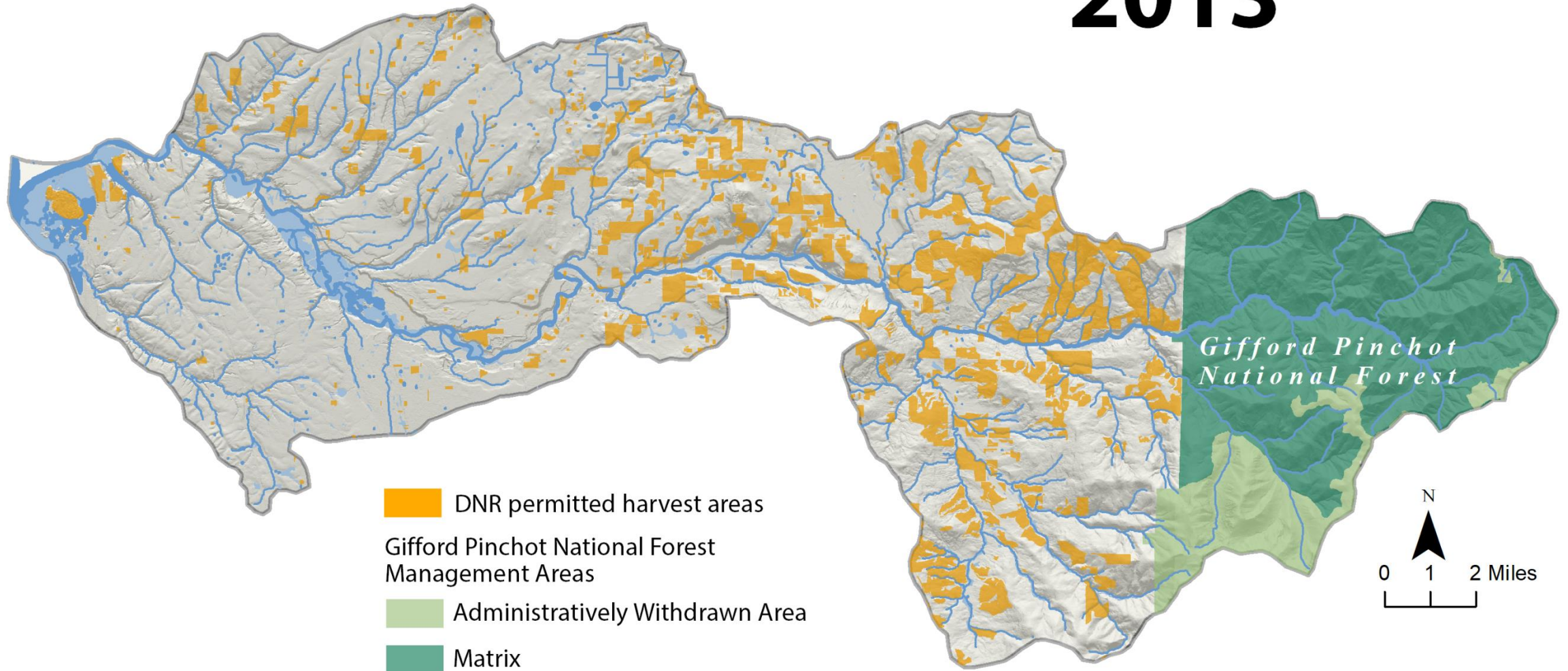
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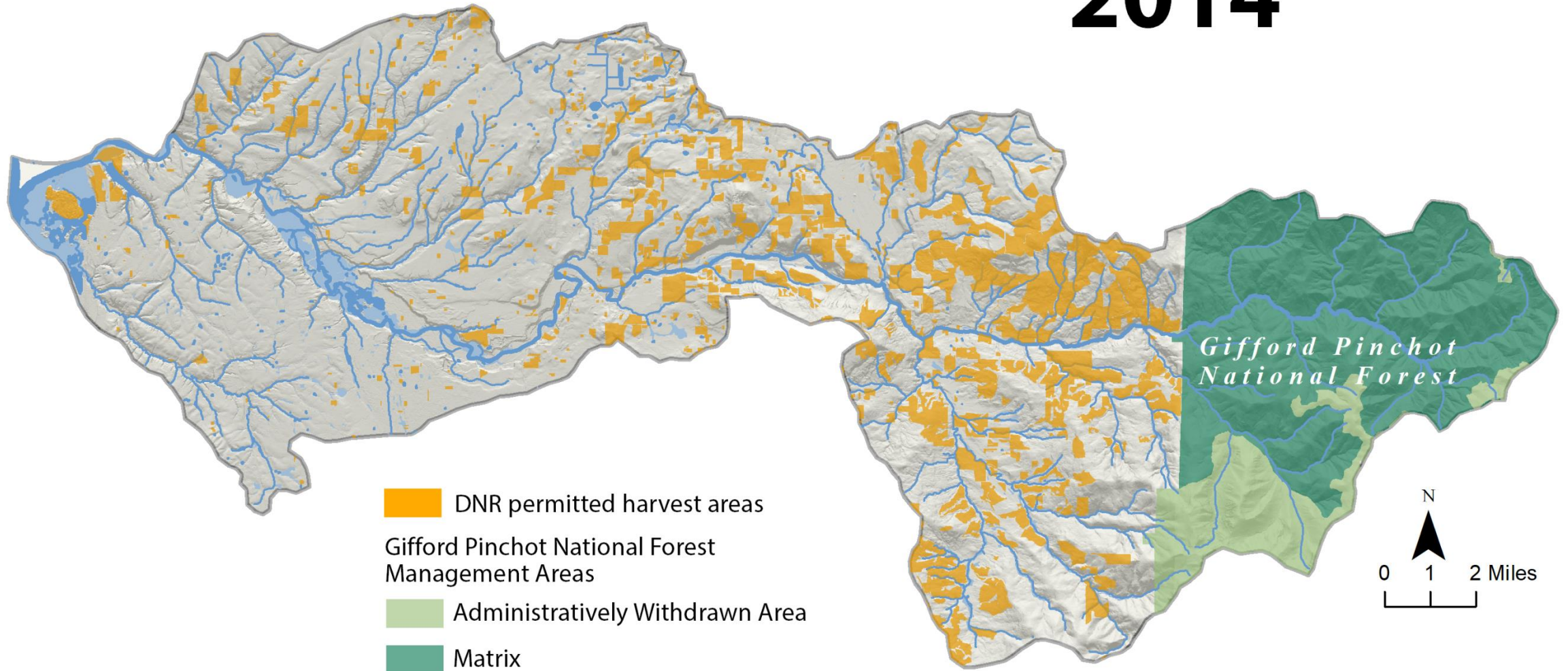
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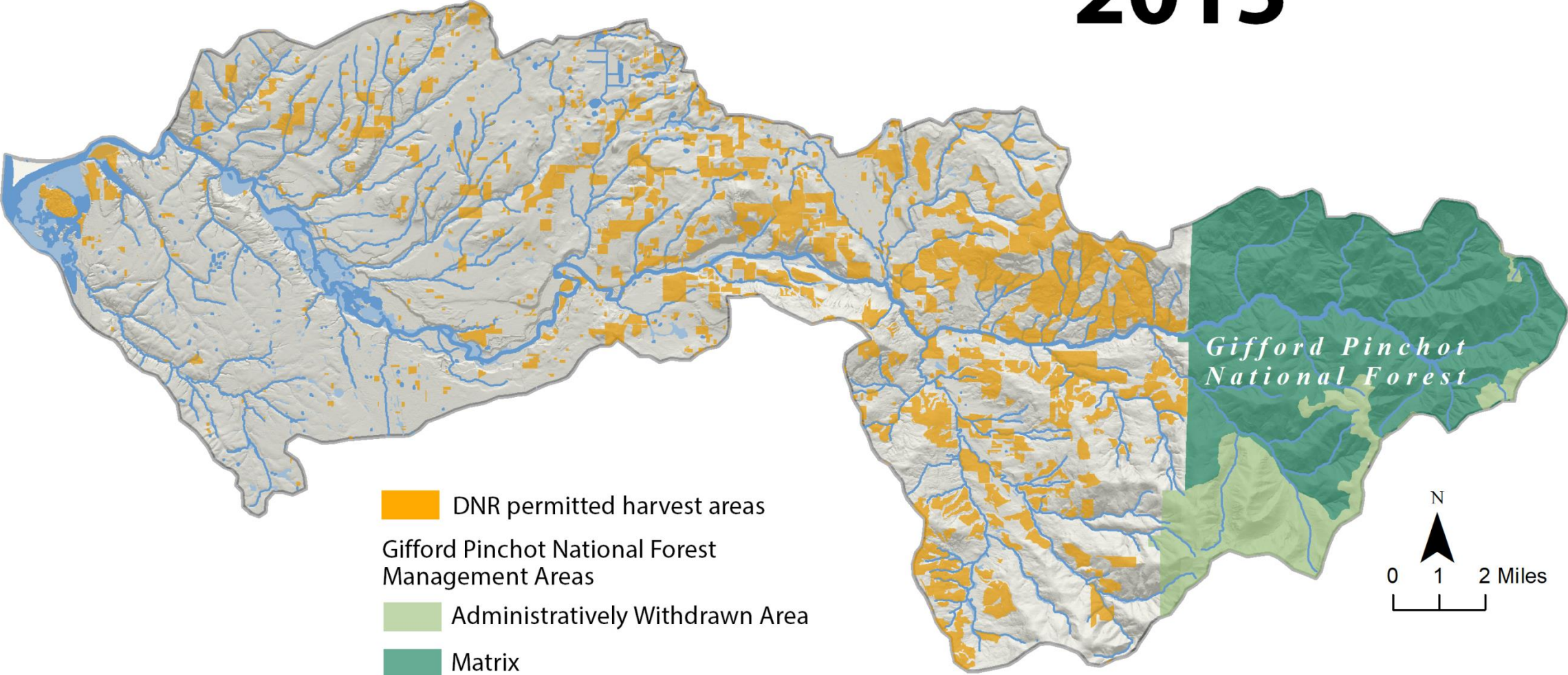
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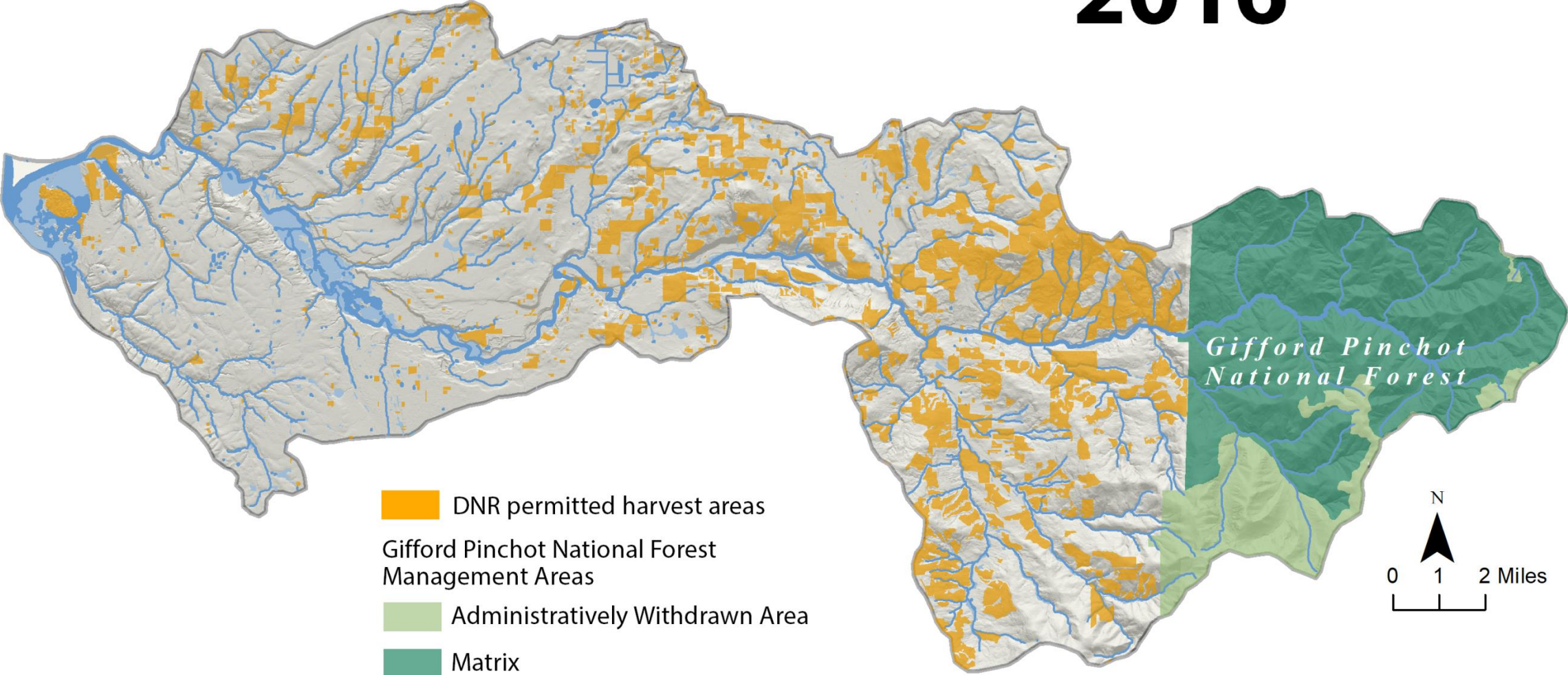
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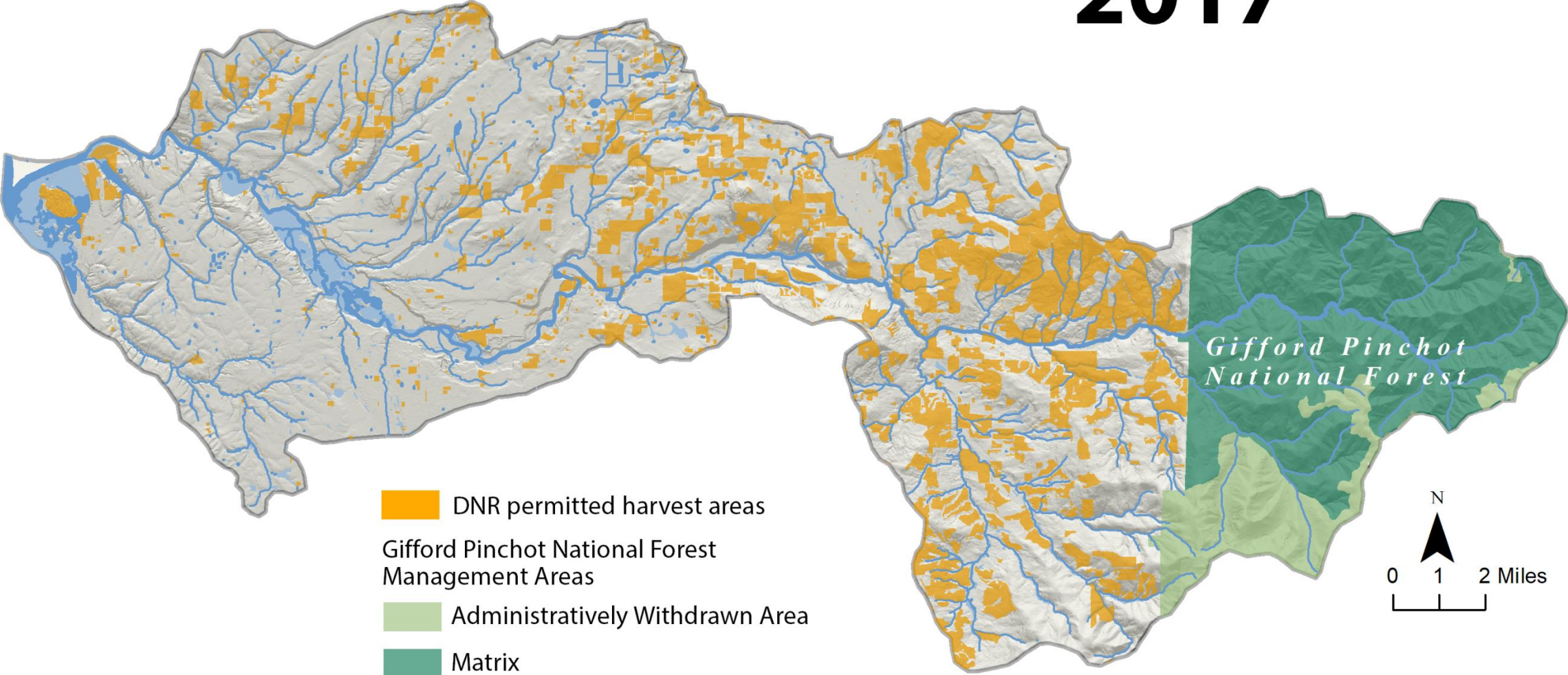
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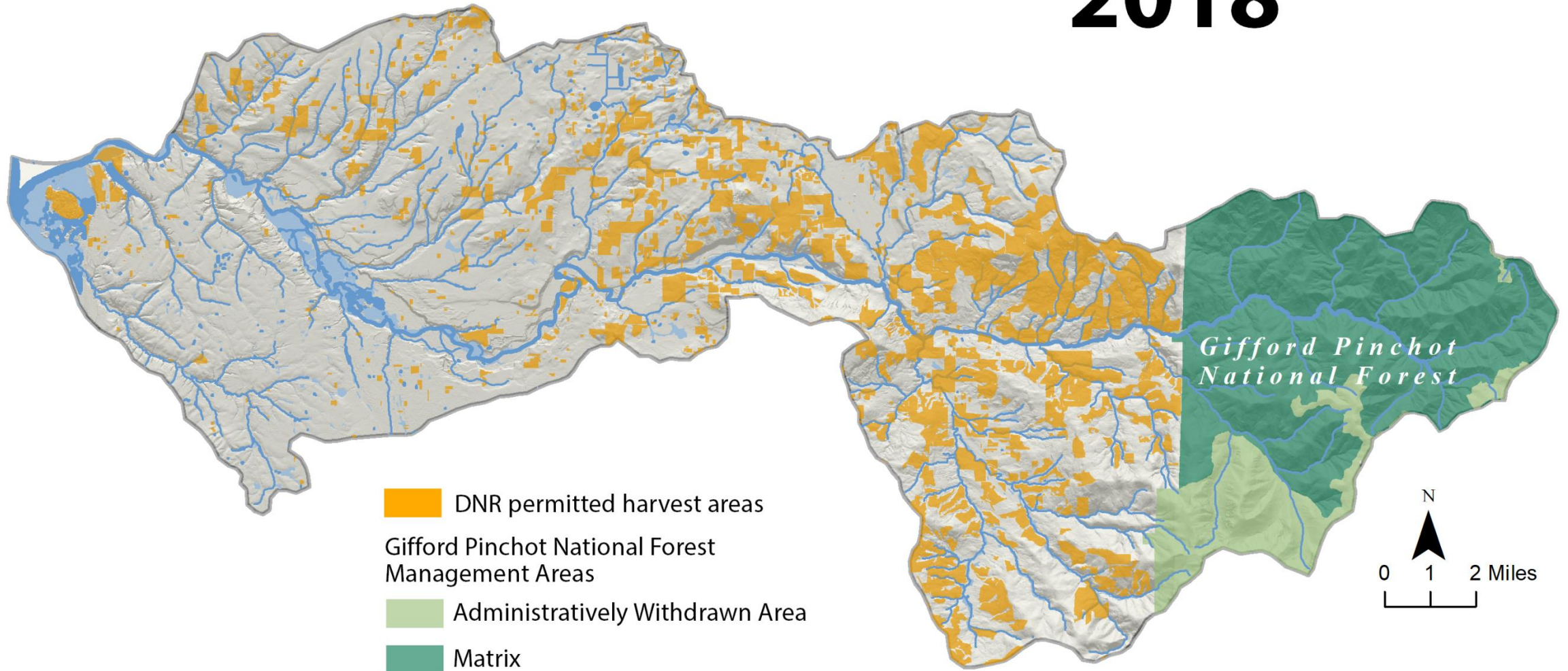
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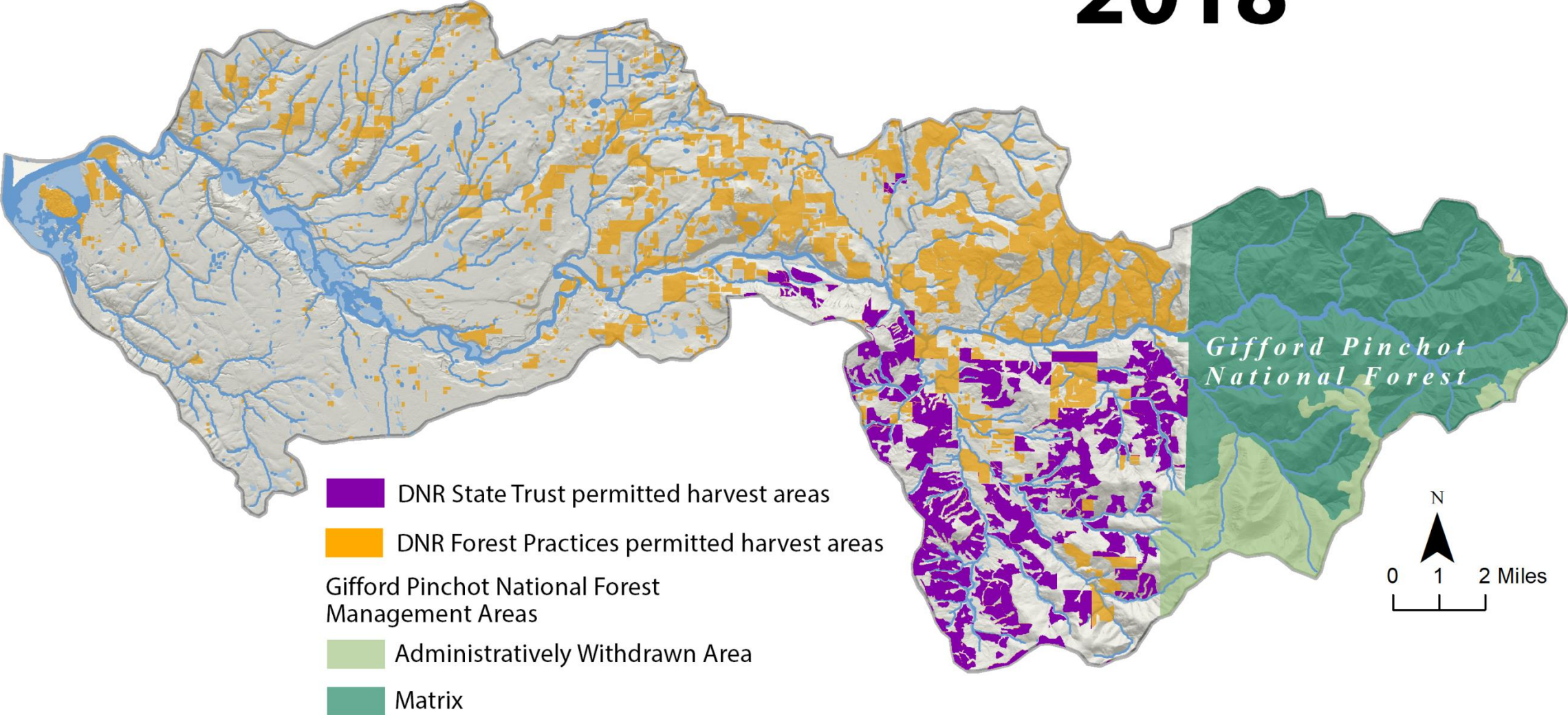
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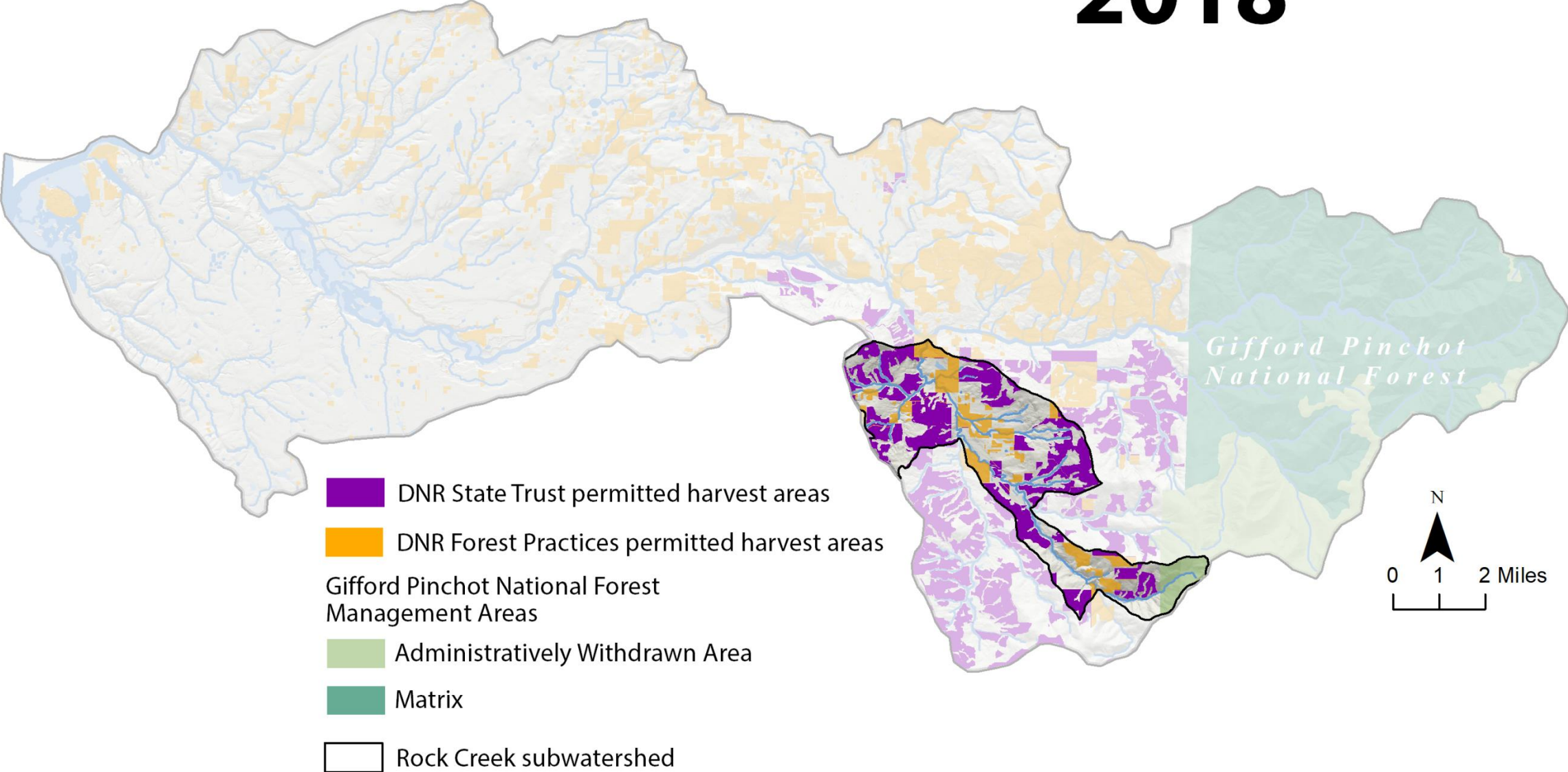
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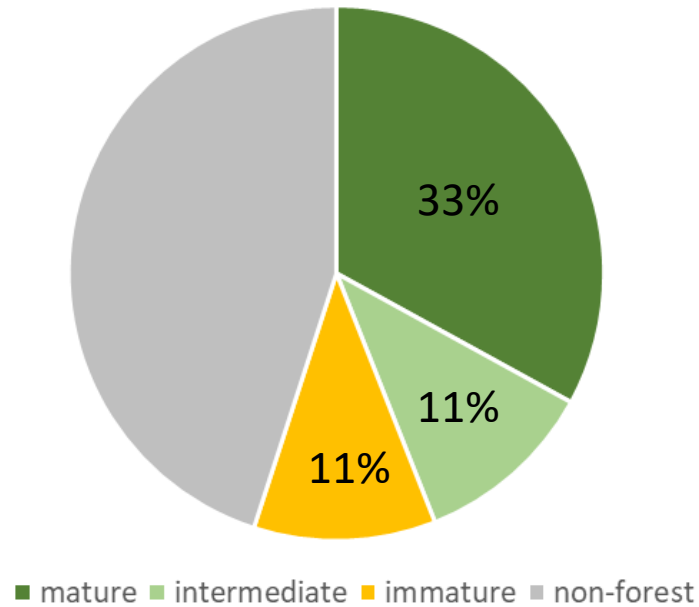
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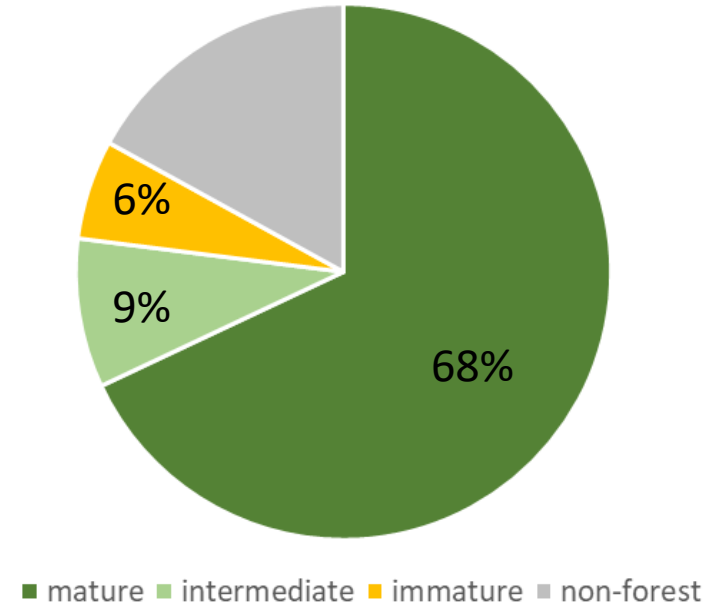


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EFLR 2016 Hydrological Maturity



EFLR Rain on Snow Zone 2016 Hydrological Maturity



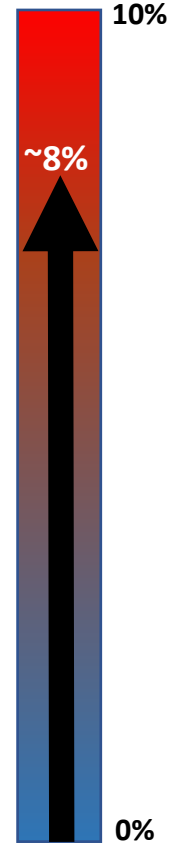
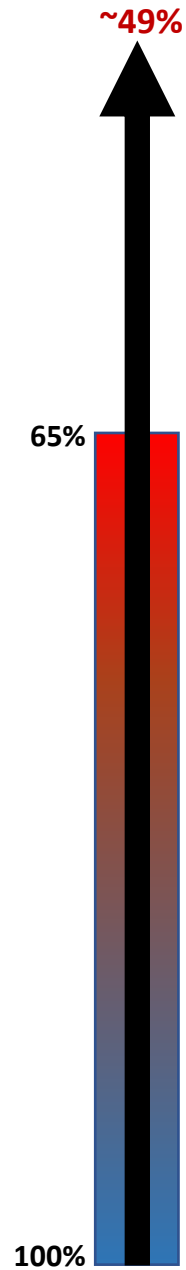
Hydrological Maturity (DNR Watershed Analysis, Hydrological Change)

- Mature: >70% Canopy Cover | < 75% hardwoods
- Intermediate: 10-70% Canopy Cover | < 75% hardwoods
- Immature: <10% Canopy Cover | > 75% hardwoods or shrubs

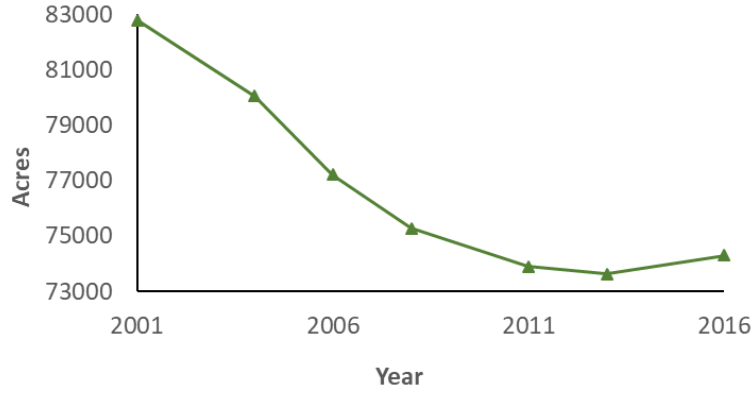


EFLR Watershed Health

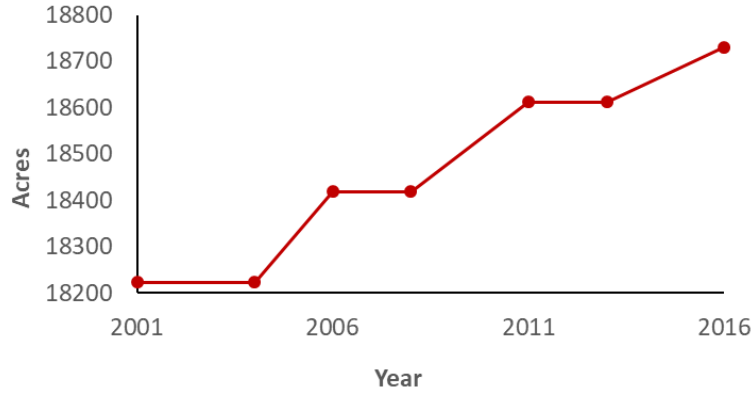
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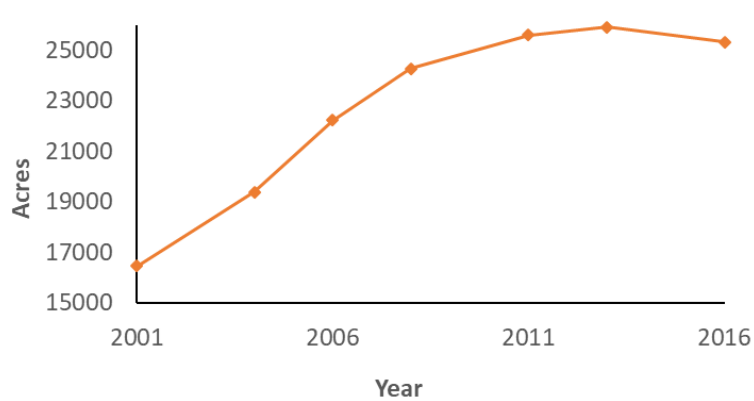
Forest Landcover



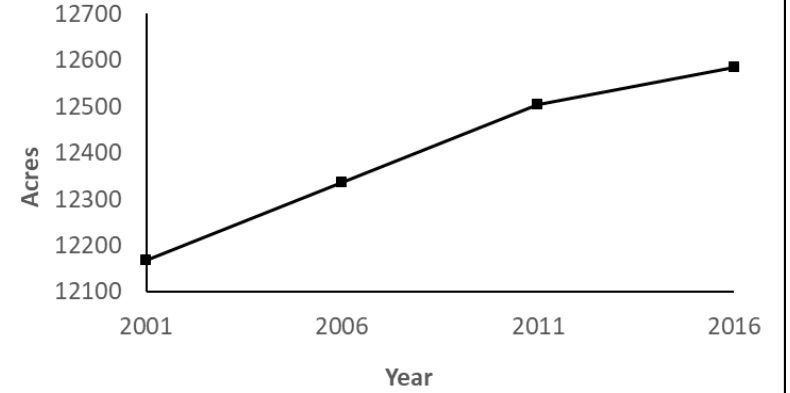
Developed Landcover



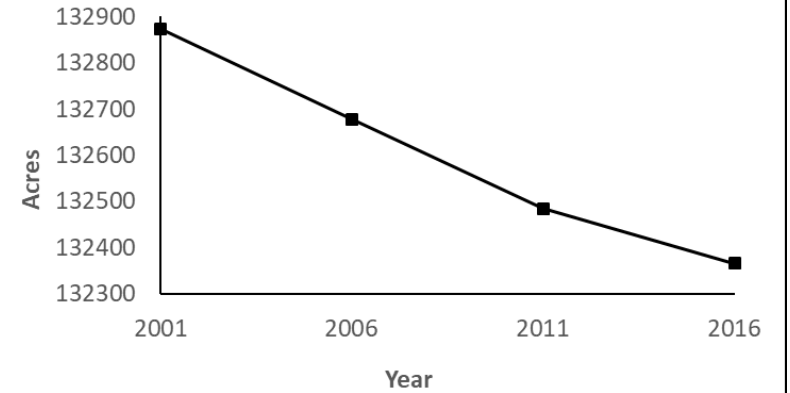
Herbaceous/Shrub/Scrub Landcover



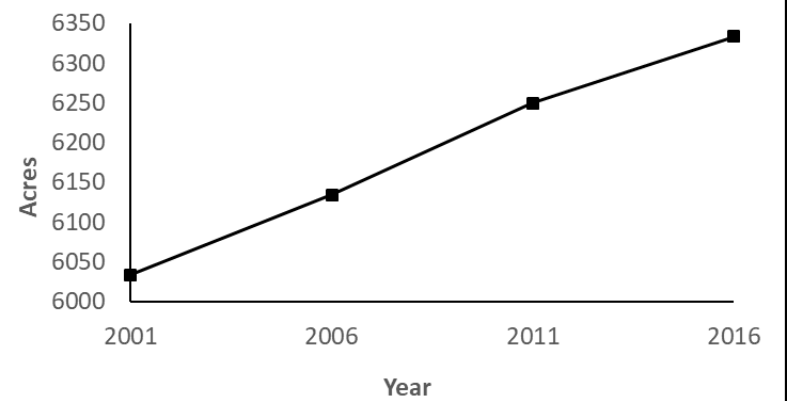
>10% Impervious



Non-impervious Surface

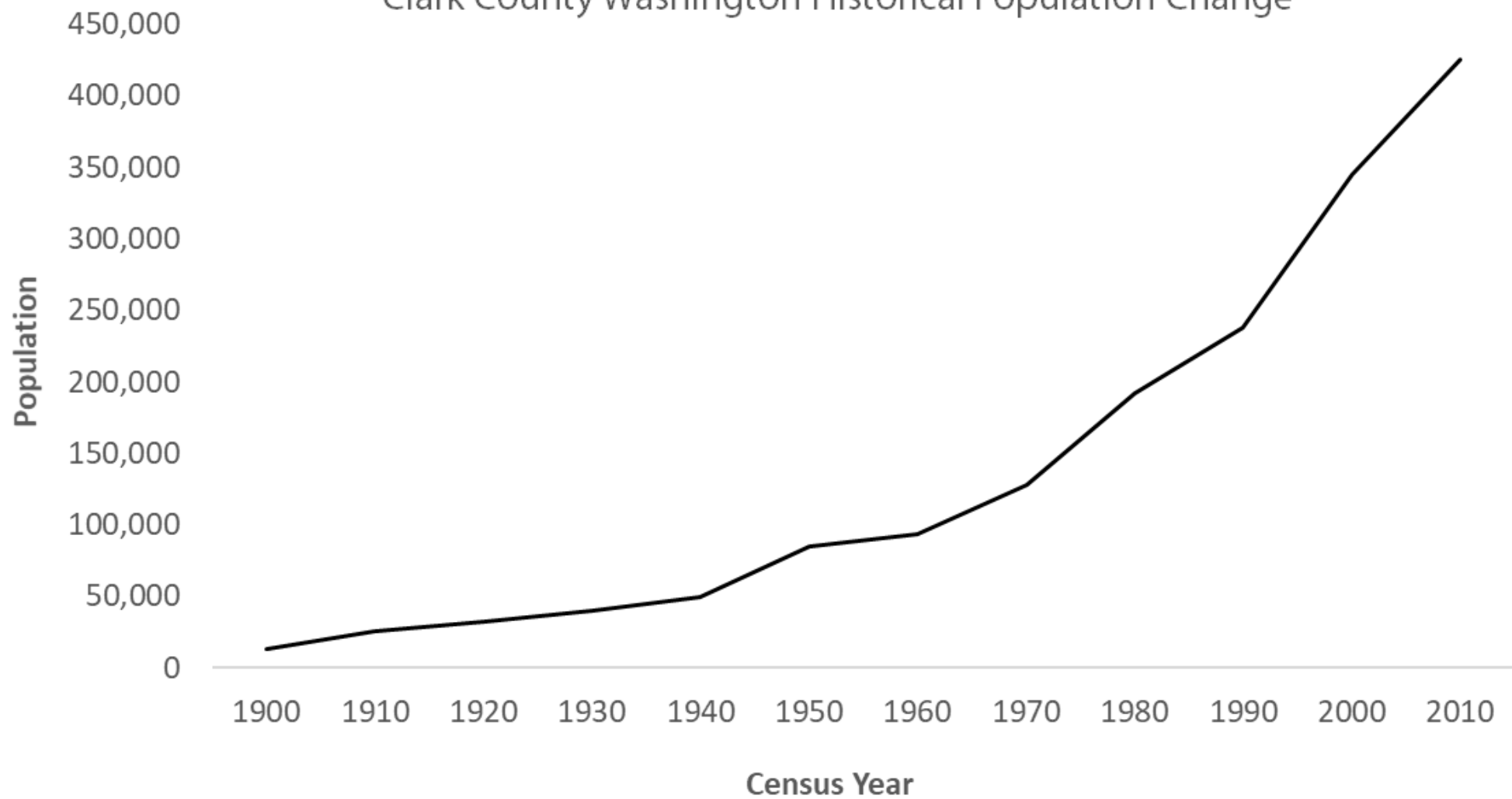


Nonroad Impervious Surface Outside Urban Area

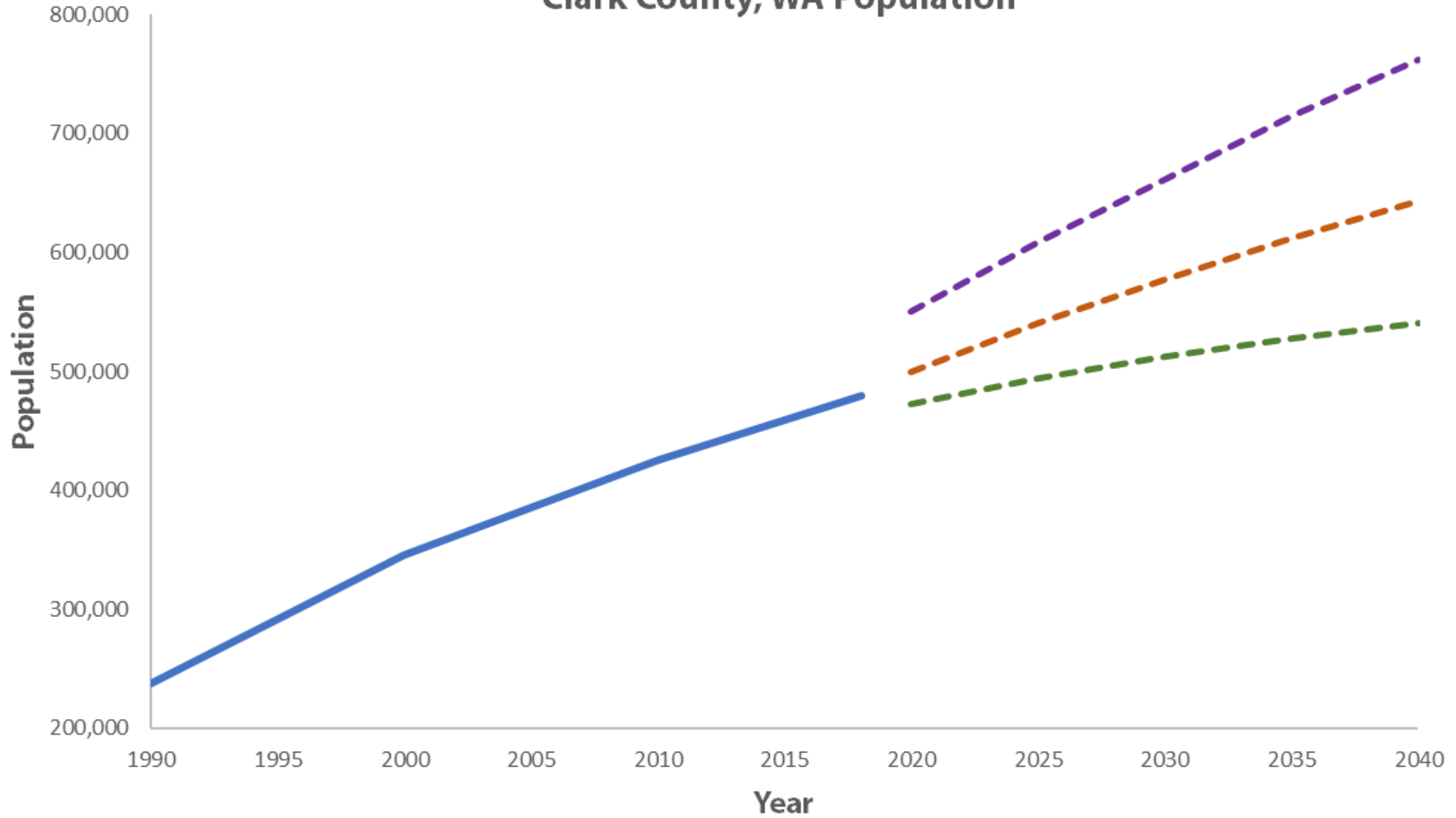


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Clark County Washington Historical Population Change



Clark County, WA Population



Population Low Projection Medium Projection High Projection

(Population data from the Office of Financial Management, Washington State)

Findings About Habitat Program Implementation and Data:

- **Implementation expectations lack sufficient detail**
- **Restoration vs regulatory program relationships**
- **Program data has unrealized potential**
- **Restoration project data in isolation is not very useful**
- **Recovery Plan LCFRB actions require further effort**

LCFRB Actions Related to this Study

Action	Schedule	Complete
PM3. Refine draft benchmarks for assessing implementation progress, effectiveness, and trend status	Every 6 years	No
PM5. Develop ESA threats criteria and prioritization. Relate actions, strategies, and measures to threats	Within 5 years	No
PM6. Conduct qualitative evaluation of program sufficiency	Every 2 years	This study relates to the habitat portion of this action
PM9. Develop and periodically update 6-year implementation work schedules	Every 6 years	14 habitat programs to-date
PM10. Evaluate whether strategies, measures, and actions are implemented as planned	Every 2 years	Federal, state, and local habitat programs are a gap
PM13. Evaluate whether strategies, measures, and actions are producing desired results for limiting factors and threats	On-going	Federal, state, and local habitat programs are a gap
PM17. Periodically evaluate habitat status relative to baseline conditions and benchmarks	On-going	No

Questions?

