

VWRC: Four Years Of Applied Riparian Restoration

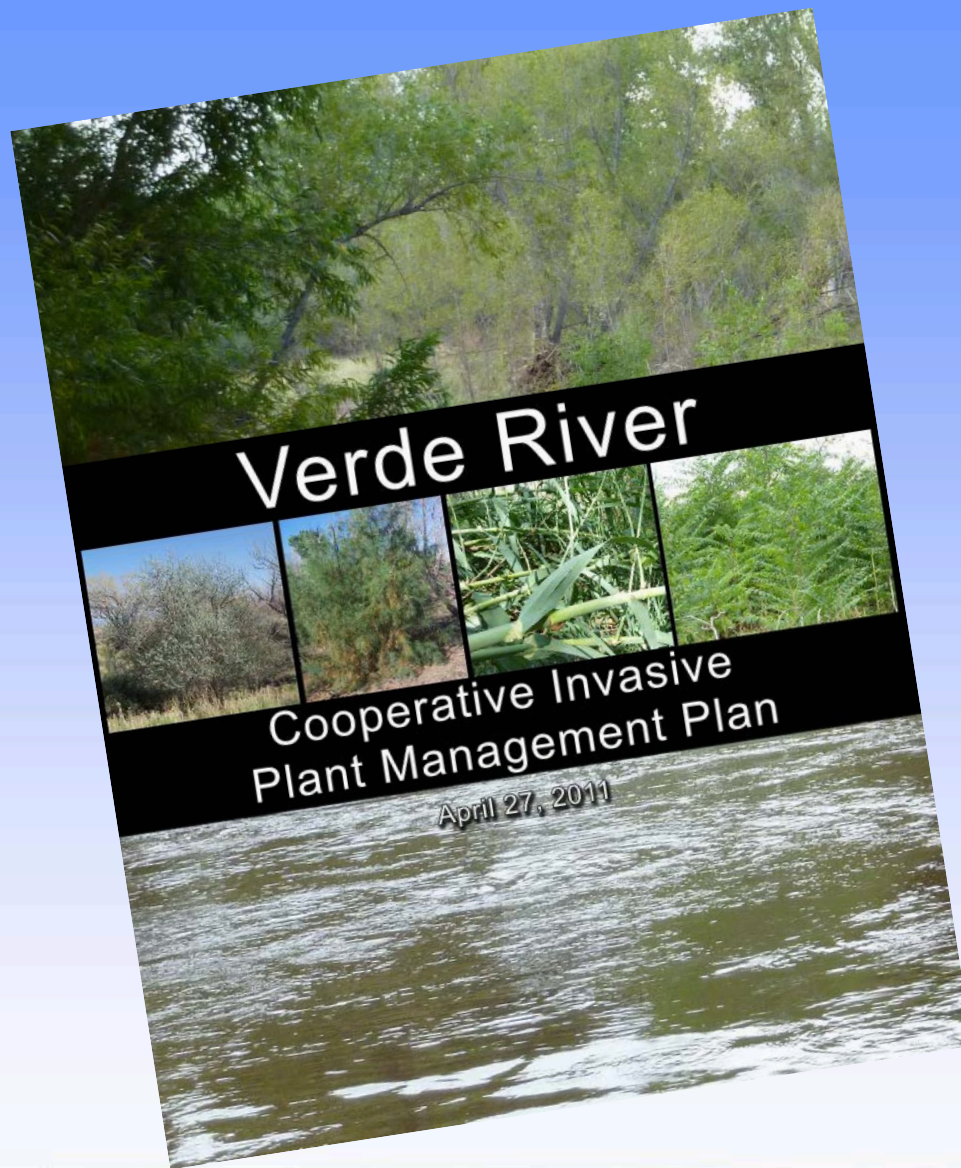


Society for Ecological Restoration Southwest
Conference

November 21, 2015
Tucson, AZ

Working Collaboratively for a Healthy Verde River





- 5 YEAR MANAGEMENT PLAN DEVELOPED IN 2011
- FUNDS ACQUIRED FOR IMPLEMENTATION OF PLAN
- IMPLEMENTATION BEGINS 2012

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VWRC STAKEHOLDERS

Public
Agencies

Private
Landowners

Non-Profits

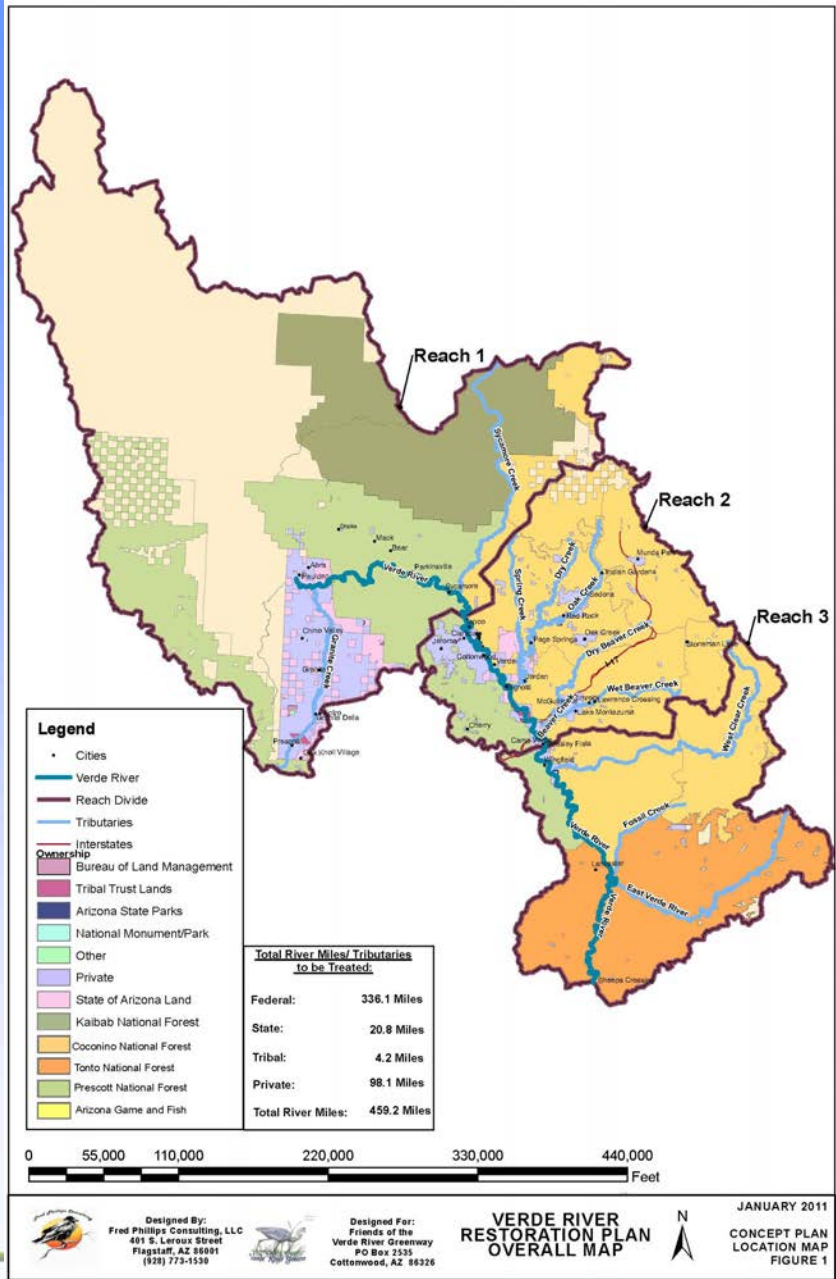
Local
Business

Tribes



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FRIENDS OF
VERDE RIVER
GREENWAY



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FRIENDS OF VERDE RIVER GREENWAY

Designed By:
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(928) 773-1530

Designed For:
Friends of the Verde River Greenway
PO Box 2535
Cottonwood, AZ 86326

CIPMP's principal vision is:

The Verde River and its tributaries comprise a diverse, self-sustaining and resilient riparian ecosystem in which invasive plant species are controlled through cooperative stakeholder participation.

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GUIDING PRINCIPLES

- Work collaboratively
- Select techniques and management practices that provide successful results
- Provide education and outreach to local communities and public
- Implement a system-wide approach

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5-YEAR GOALS

- Ecological
- Social
- Economic
- Management



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ECOLOGICAL

- Reduce invasive woody and herbaceous plant species
- Eliminate seed sources to prevent further invasive plant species infestation
- Allow the riparian and wetland areas to become more naturally functioning, sustainable, and resilient to change



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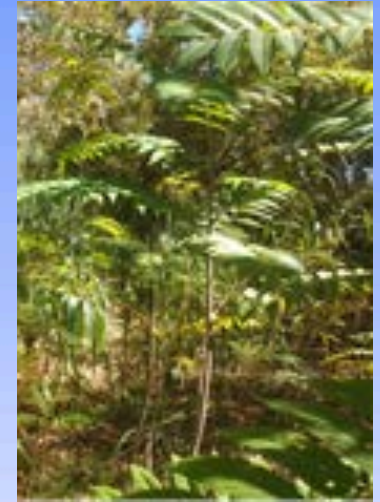
VWRC Species of Concern

Reduce to less than 10% cover of site

- Tamarisk (*Tamarix spp.*)
- Tree of Heaven (*Ailanthus altissima*)

Eliminate from watershed

- Giant reed (*Arundo donax*)
- Russian olive (*Elaeagnus angustifolia*)



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SOCIAL

- Provide education and outreach to the local community and public.
- Offer information on the prevention and removal of invasive species
- Provide services and funding for removing invasive species on private land.

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ECONOMIC

- Give the local community economic incentives for removing invasive plant species on their own property.
- Provide employment opportunities to local youth and veterans

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VWRC Steering Committee & Subcommittees

- 19-Member Steering Committee
- Meets monthly
- Guide and directs VWRC

Staff

- Program Manager
- Program Coordinator
- Field Data Coordinator
- Community Outreach Director
- Program Administrator
- Field Supervisor

Subcommittees

- Outreach, Education and Engagement
- Research and Monitoring
- Sustainable Funding
- Planning and Implementation

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MANAGEMENT

- Establish a multi-stakeholder group to accomplish the ecological, social and economic goals.
- Monitor treatments for long-term effectiveness.

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VWRC OUTREACH

- Education
 - Community Presentations
 - Field Crew Training
 - MUHS Monitoring Pilot Project
 - Community Events
- Private Landowners
 - Riparian Steward Education
 - Habitat Improvement Agreements
 - Conservation Planning



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Mapping Strategy

- Develop mapping protocol
- Training
- Create geospatial database
- Develop approach to mapping a watershed
 - Demonstration Projects
 - Upper Watershed and Tributaries
 - Private land
 - Public land
 - Remote areas



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Mapping and Inventory Protocol

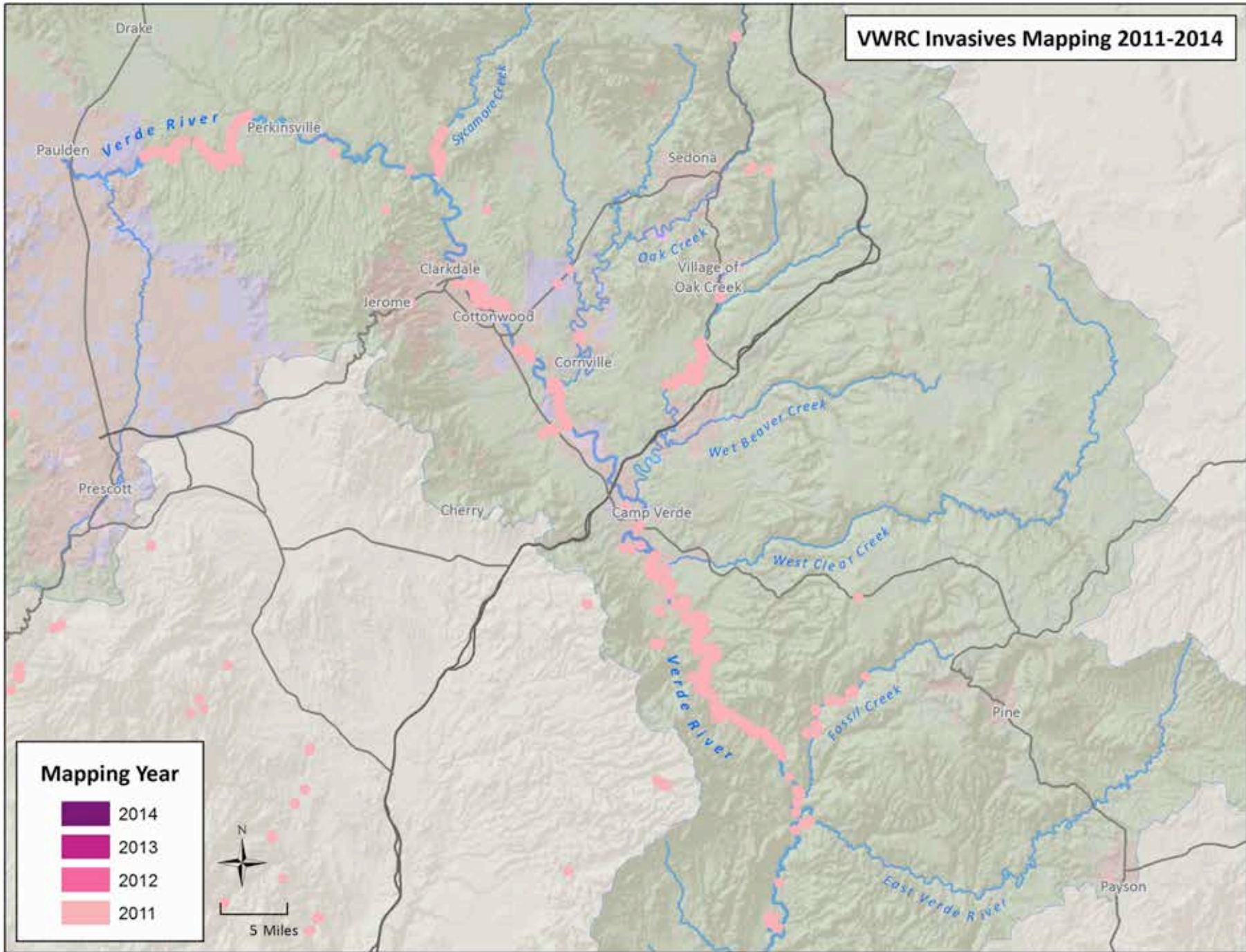
- What are we mapping?
 - Saltcedar
 - Tree of heaven
 - Russian olive
 - Giant Reed
 - Secondary invasives
- Plant Data
 - Cover, distance to water, size class, patch size
- Site Characteristics
 - Stressors, access



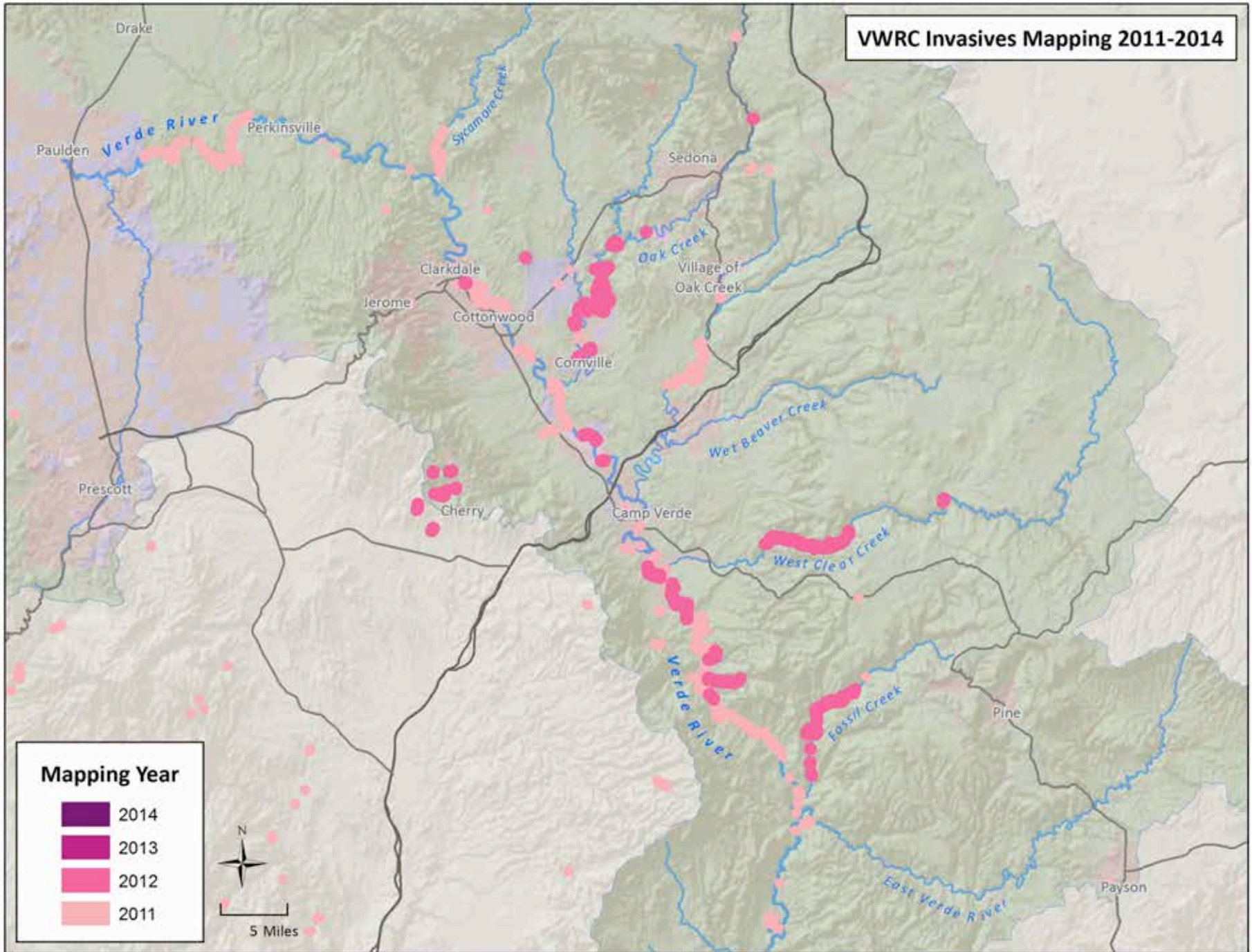
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VWRC Invasives Mapping 2011-2014



VWRC Invasives Mapping 2011-2014



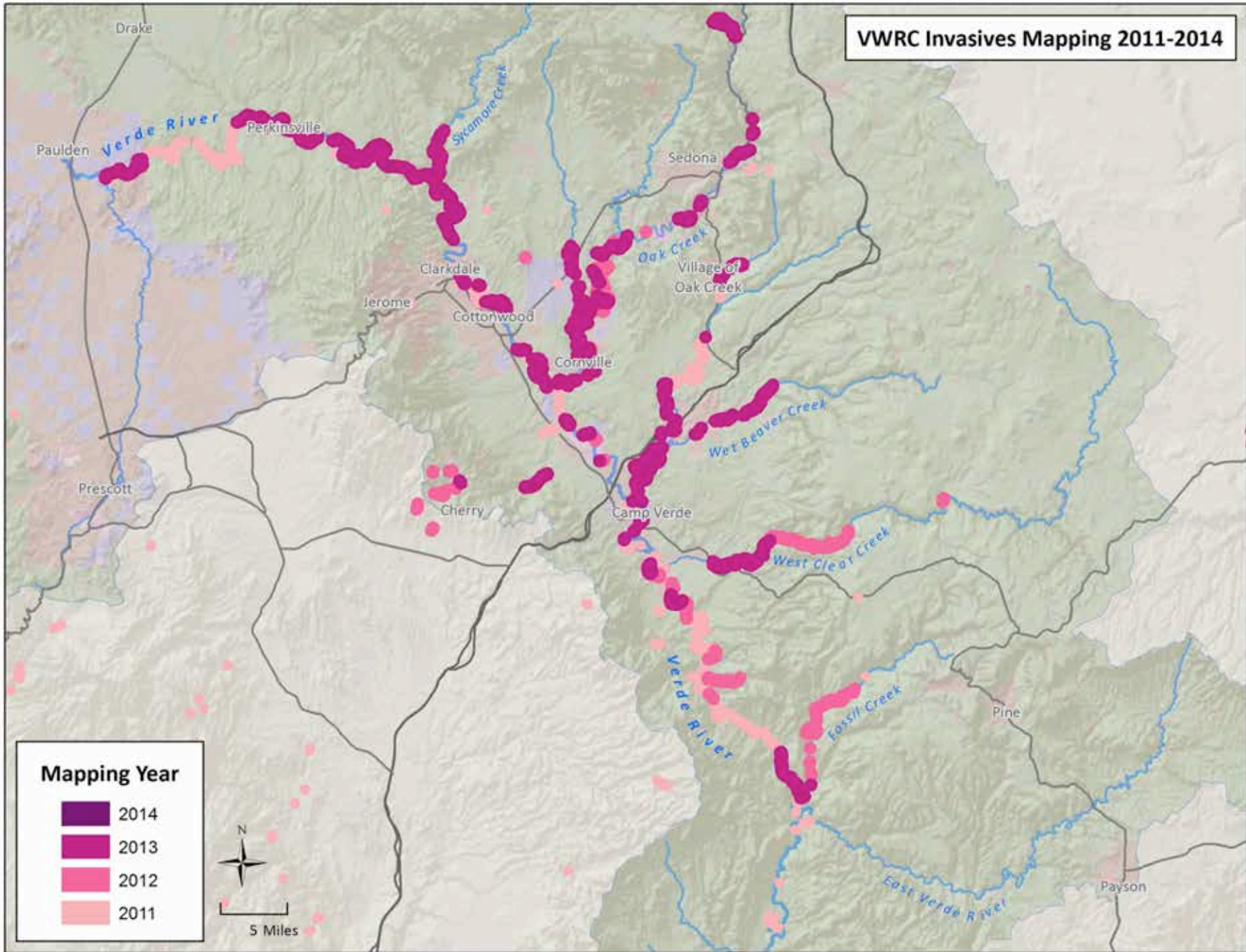
Mapping Year

- 2014
- 2013
- 2012
- 2011

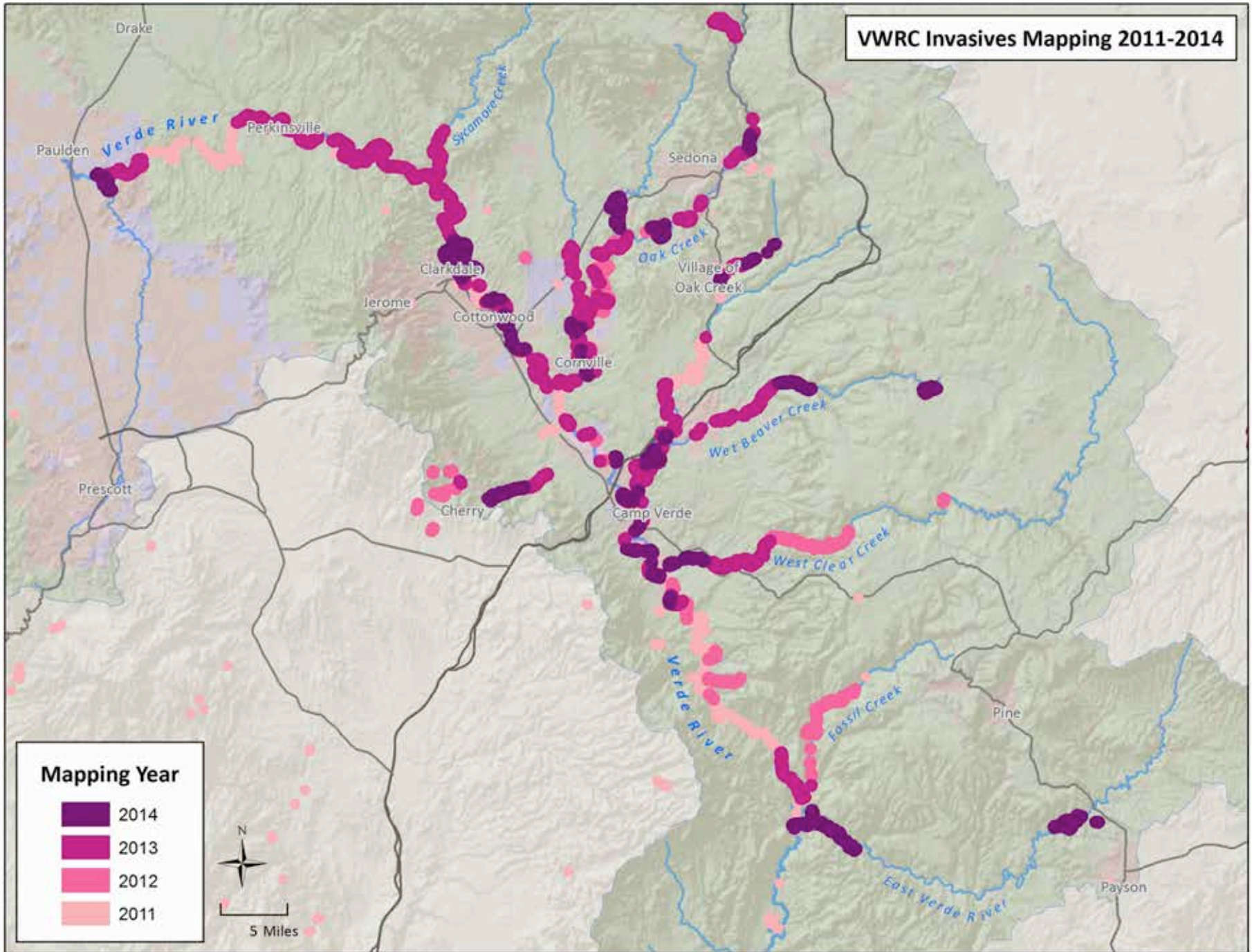
N

5 Miles

VWRC Invasives Mapping 2011-2014



VWRC Invasives Mapping 2011-2014



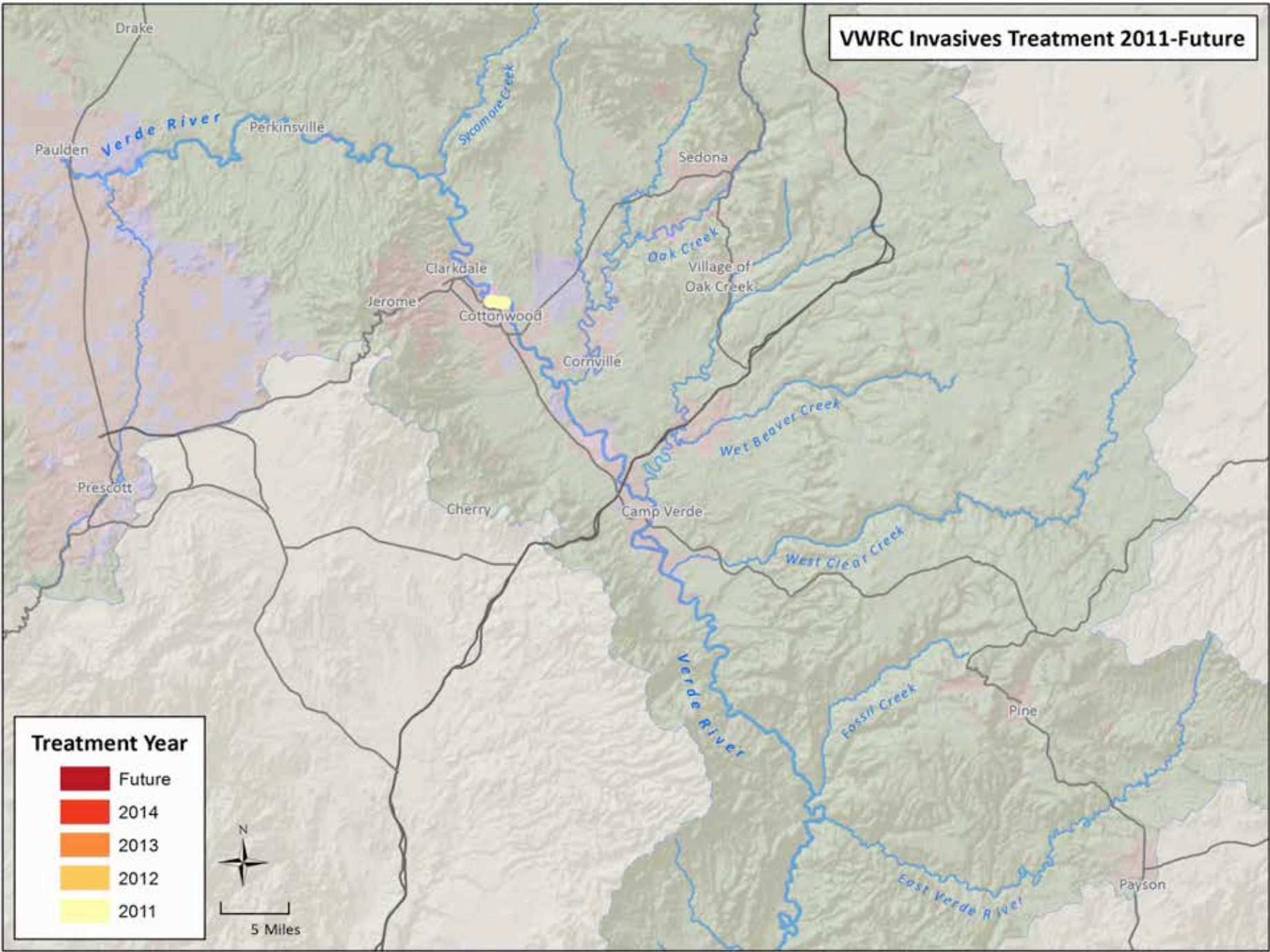
Treatment Prioritization

- Site and Species Prioritization Approach
- VWRC Partner Priorities
- Critical Five
 - Funding \$\$\$\$\$\$\$
 - Landowner/manager willing
 - Permits are obtained
 - Capacity available
 - Site accessibility

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VWRC Invasives Treatment 2011-Future



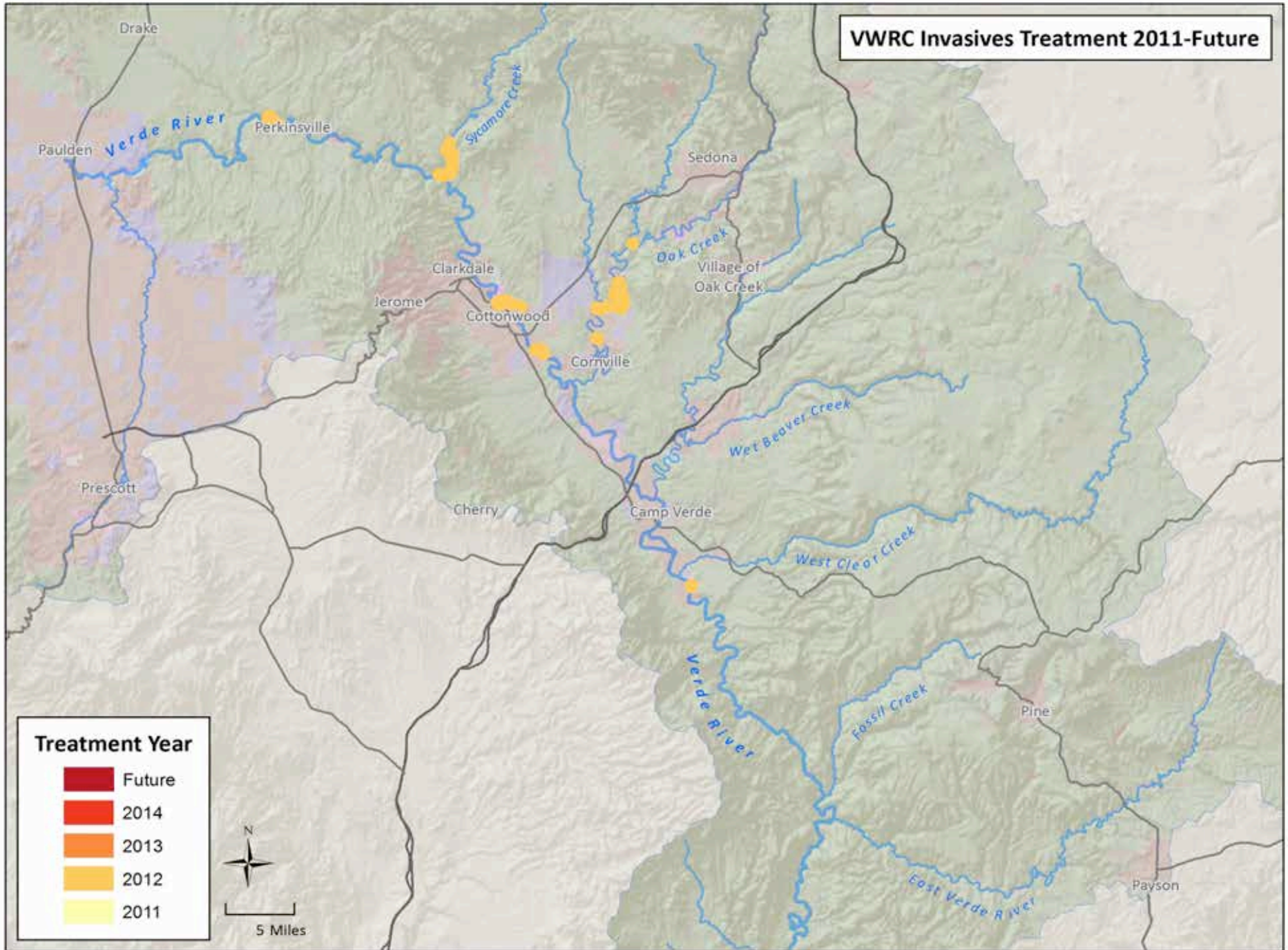
Treatment Year

- Future
- 2014
- 2013
- 2012
- 2011

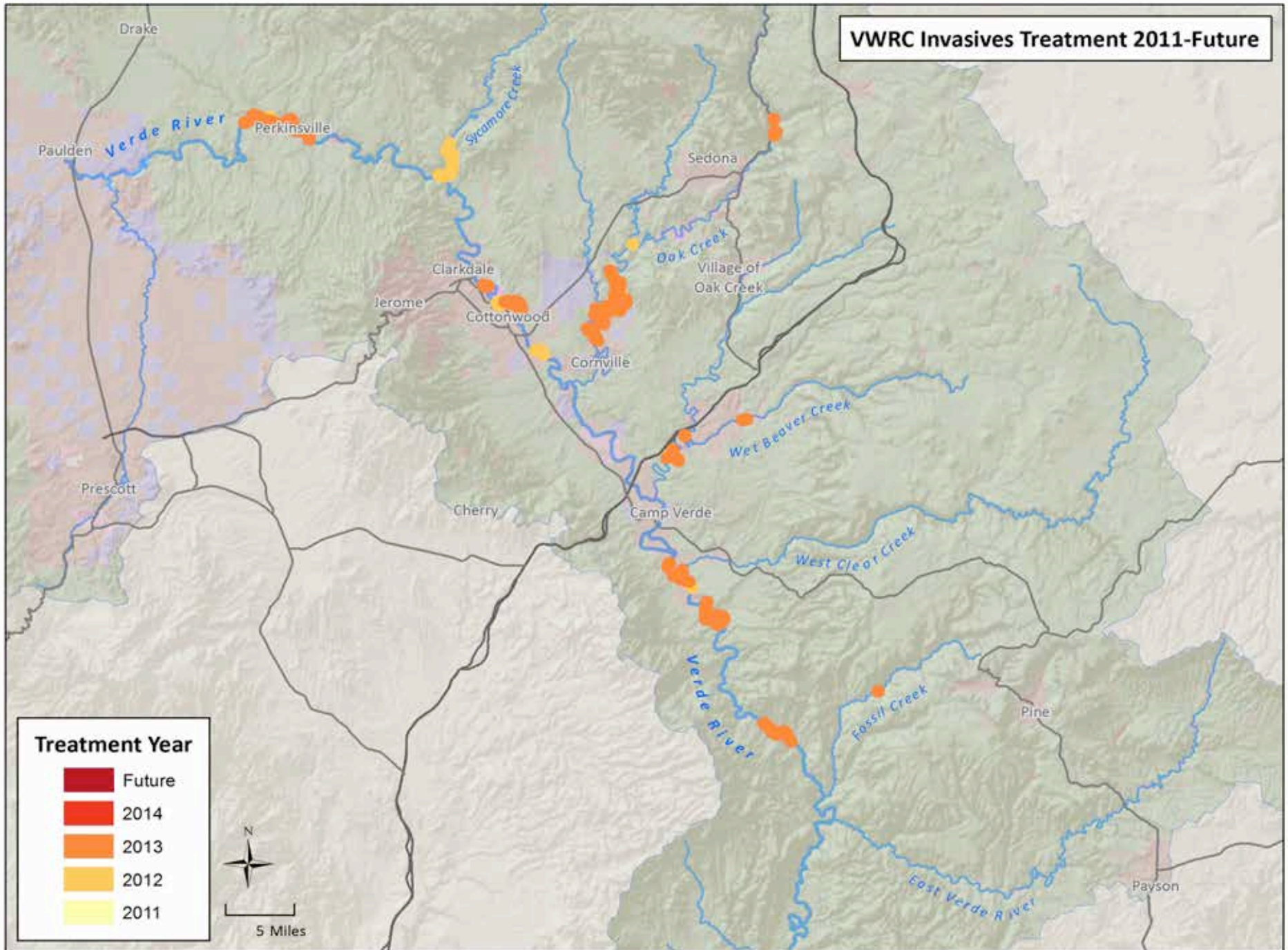


5 Miles

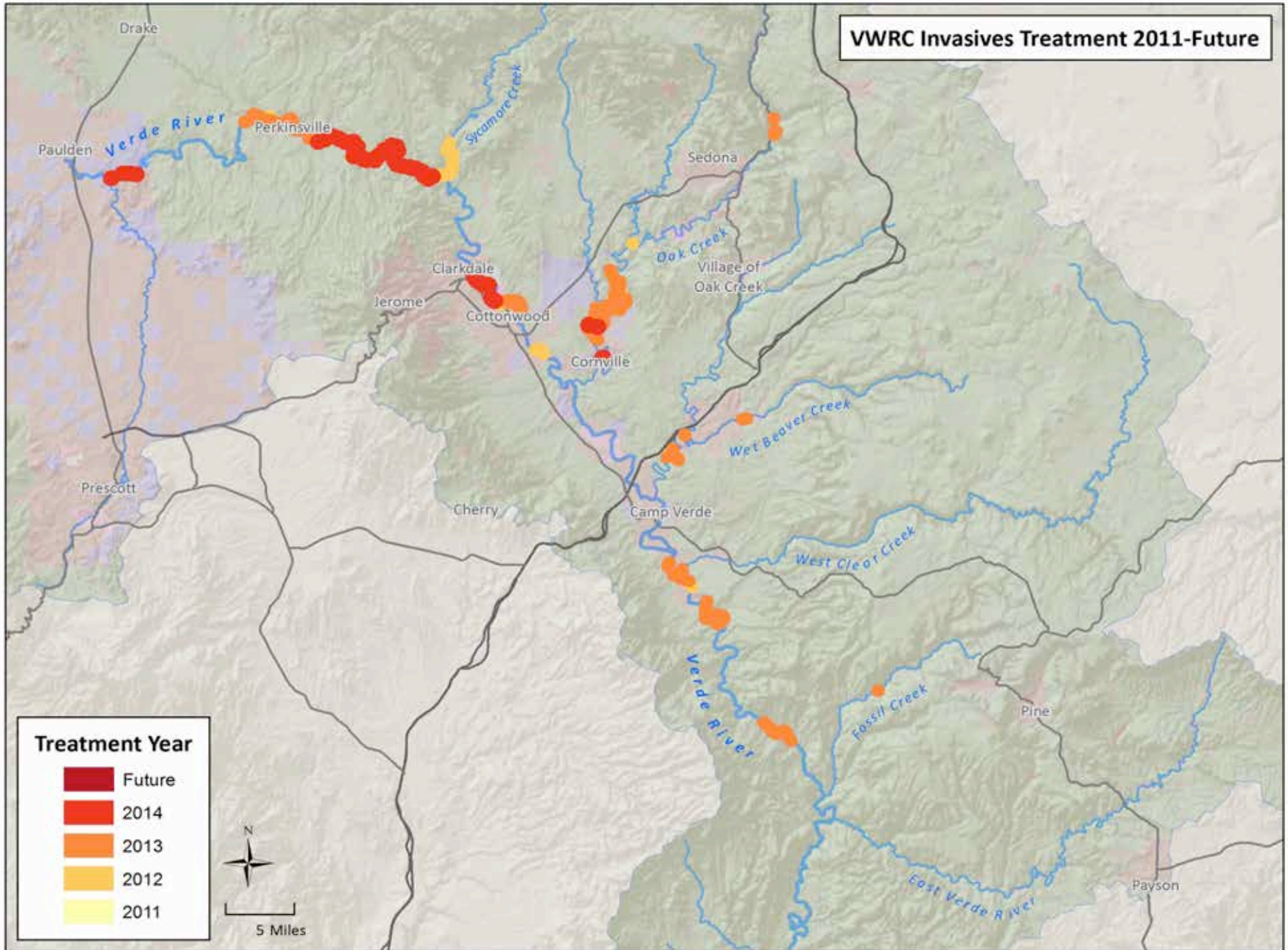
VWRC Invasives Treatment 2011-Future



VWRC Invasives Treatment 2011-Future



VWRC Invasives Treatment 2011-Future

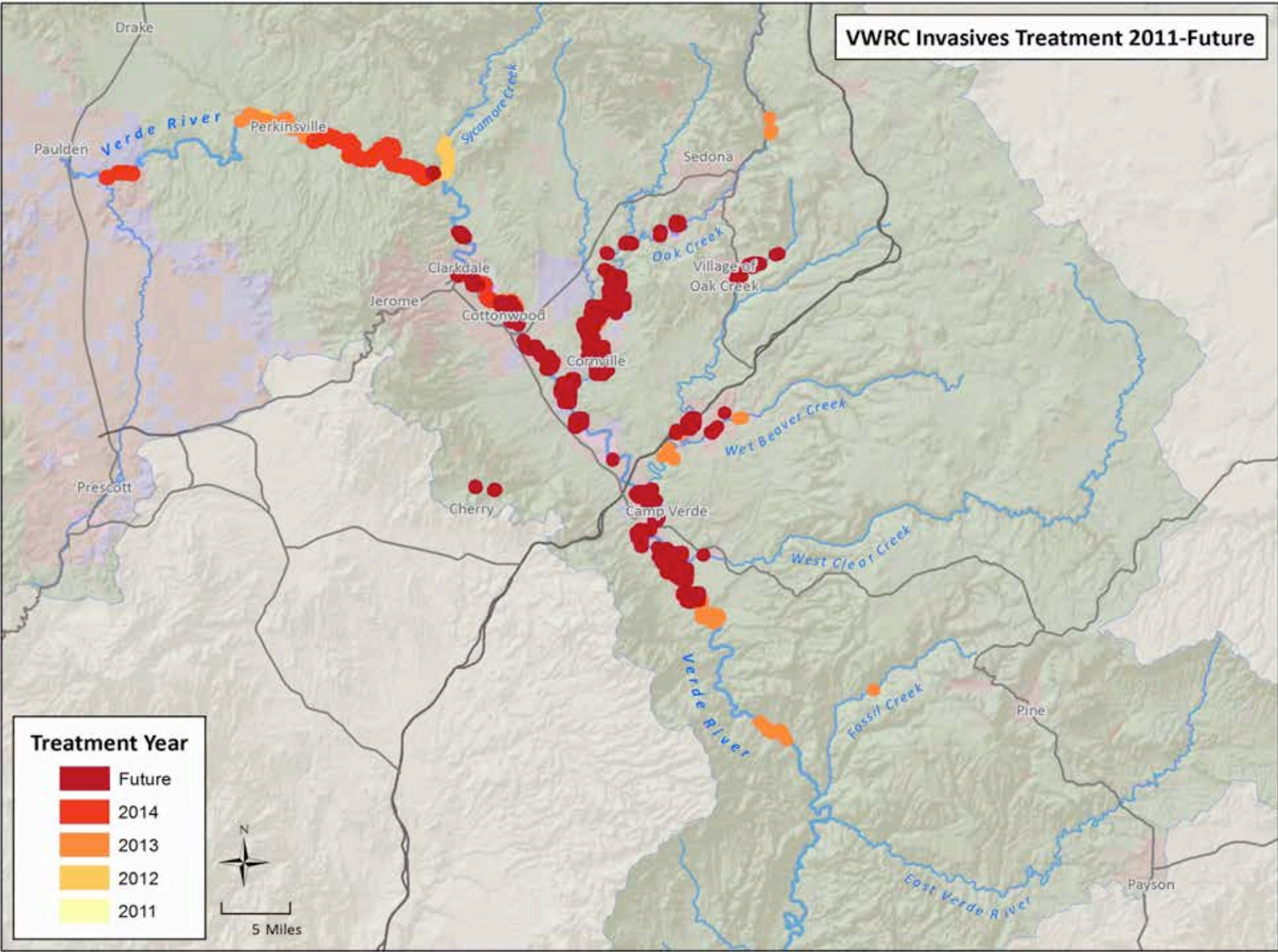


Treatment Year

Dark Red	Future
Red	2014
Orange	2013
Light Orange	2012
Yellow	2011



VWRC Invasives Treatment 2011-Future



Treatment Accomplishments

Private Land

- 220 landowners participating
- 2273 riparian acres
- 2018 riparian acres mapped for invasive plants
- Habitat Improvements
 - Initial Attack = 650 Acres
 - Monitored/Maintenance = 211 Acres
 - Initial Treatment needed = 975 Acres

Public Lands

- Forest Service, National Park Service, AZ State Parks, AZ Game and Fish Department
- Habitat Improvements
 - Initial Attack = 6174 Acres
 - Monitoring/Maintenance = 1271 Acres
 - Treatment Needed = 1105 Acres



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VWRC Monitoring

- VWRC Monitoring Plan
 - Short-term Monitoring
 - Pre-treatment Rapid Assessment
 - Mapping of Invasive Plants
 - Post-treatment Rapid Assessment
 - Native Recruitment
 - Long-term Monitoring
 - Photo Points
 - Research Based Monitoring

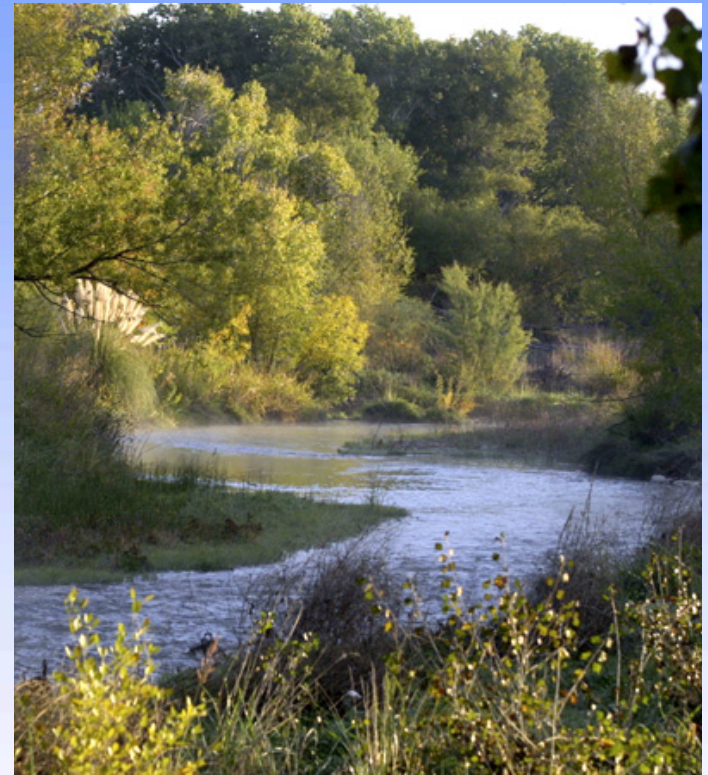


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Moving Beyond the Weeds: VWRC Strategic Planning

- **Expanded Mission:** To support the *values* and the *functions* of riparian lands in the Verde River Watershed
- **Additional Priorities Identified**
 - Monitoring
 - Streambank Stabilization
 - Volunteer Network
 - Native Plant Propagation Center/ Tree Replacement Program
 - Multiple Species Approach
 - Flow Restoration
 - Watershed Education
 - State of the Watershed-Annual Event
- **Expanded Restoration Plan**



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Questions?????

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