

Pennsylvania's Fore
Looking Forward

pennsylvani
DEPARTMENT OF CONSERVAT
AND NATURAL RESOURCES

Pennsylvania's Forests
Working for Forests
National Perspective
Planning
Looking Forward


Penn's Woods:
Forests once covered 95%
of Pennsylvania
1681 William Penn: for every 5 acres cleared, 1 acre preserved

Looking back... A history of natural resources use



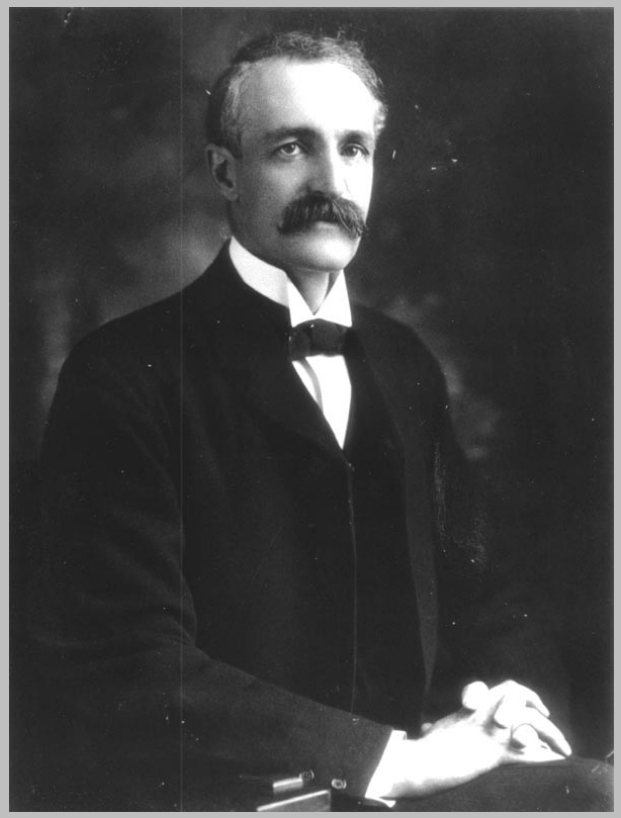
Beginning of the Modern Conservation Movement



Joseph Rothrock
Botanist
Pennsylvania Desert
1895 PA's 1st Forestry Commissioner



Mira Lloyd Dock
Botanist
Harrisburg beautification
1st women govt office in PA
PA Forest Reservation



Gifford Pinchot
Forester
First Chief of Forest Svc
PA Governor
Forest Reserves

nsylvania
sion of Forestry

ated in 1895

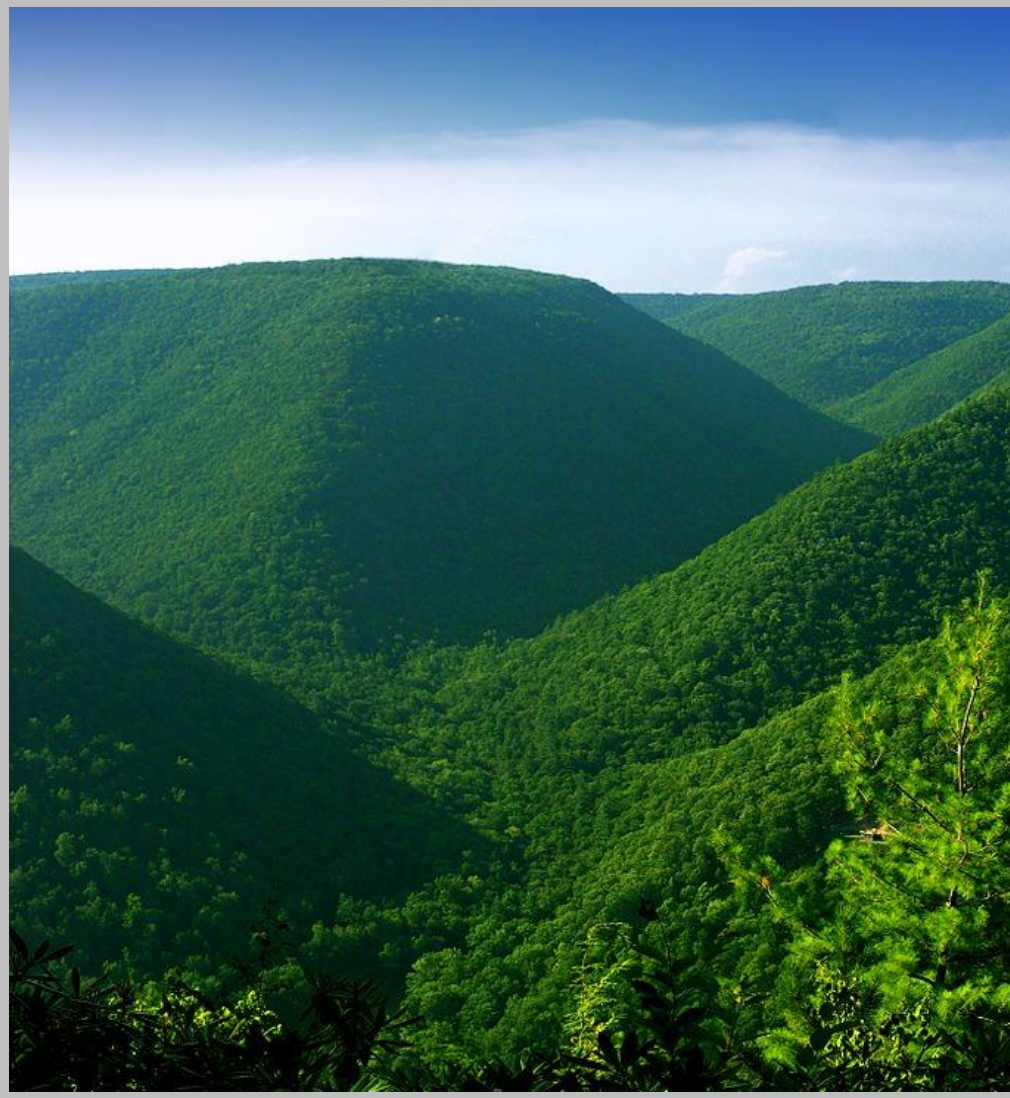
her Information

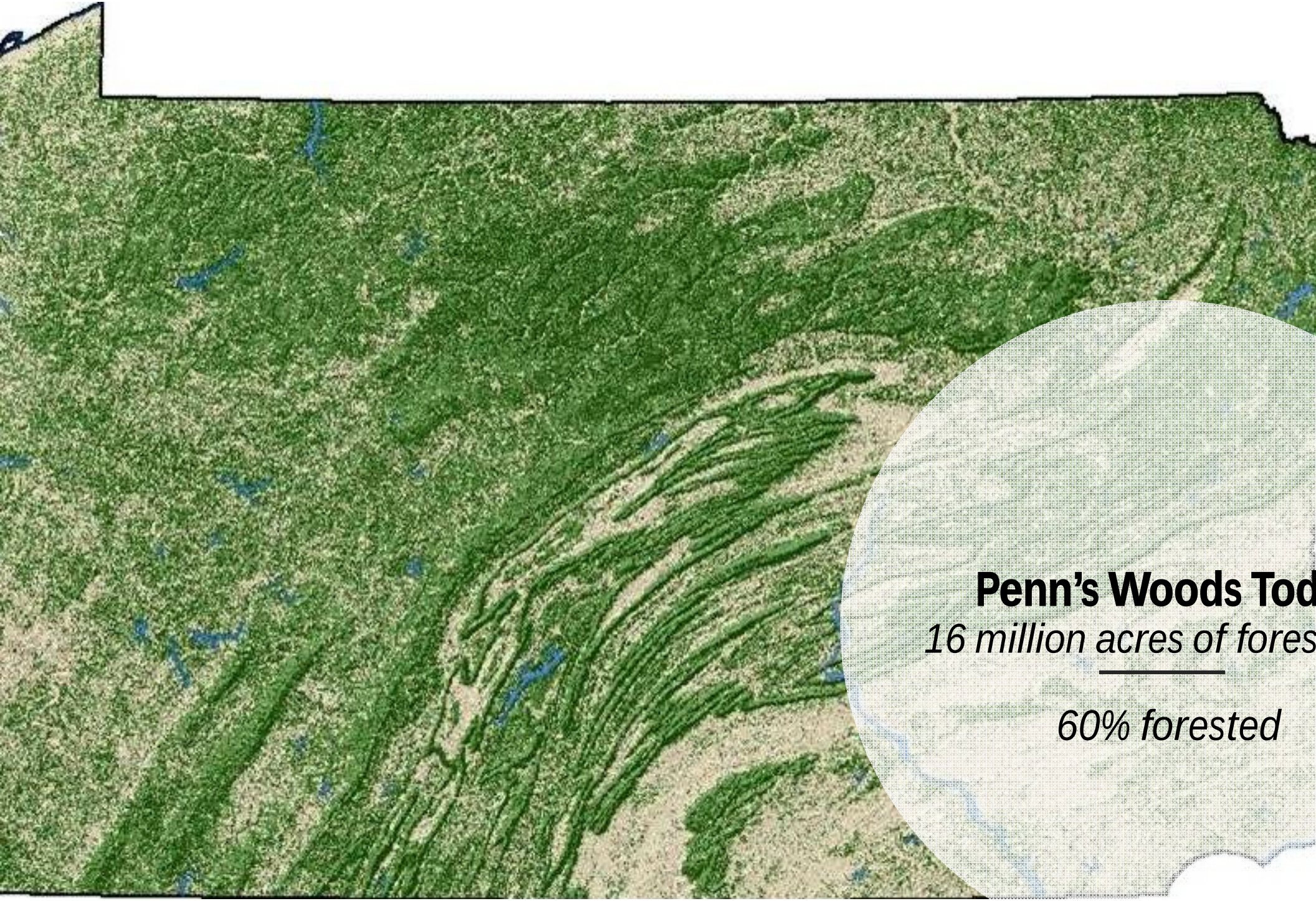
ect from Fires

uire Land for Reforestation &
ershed Protection







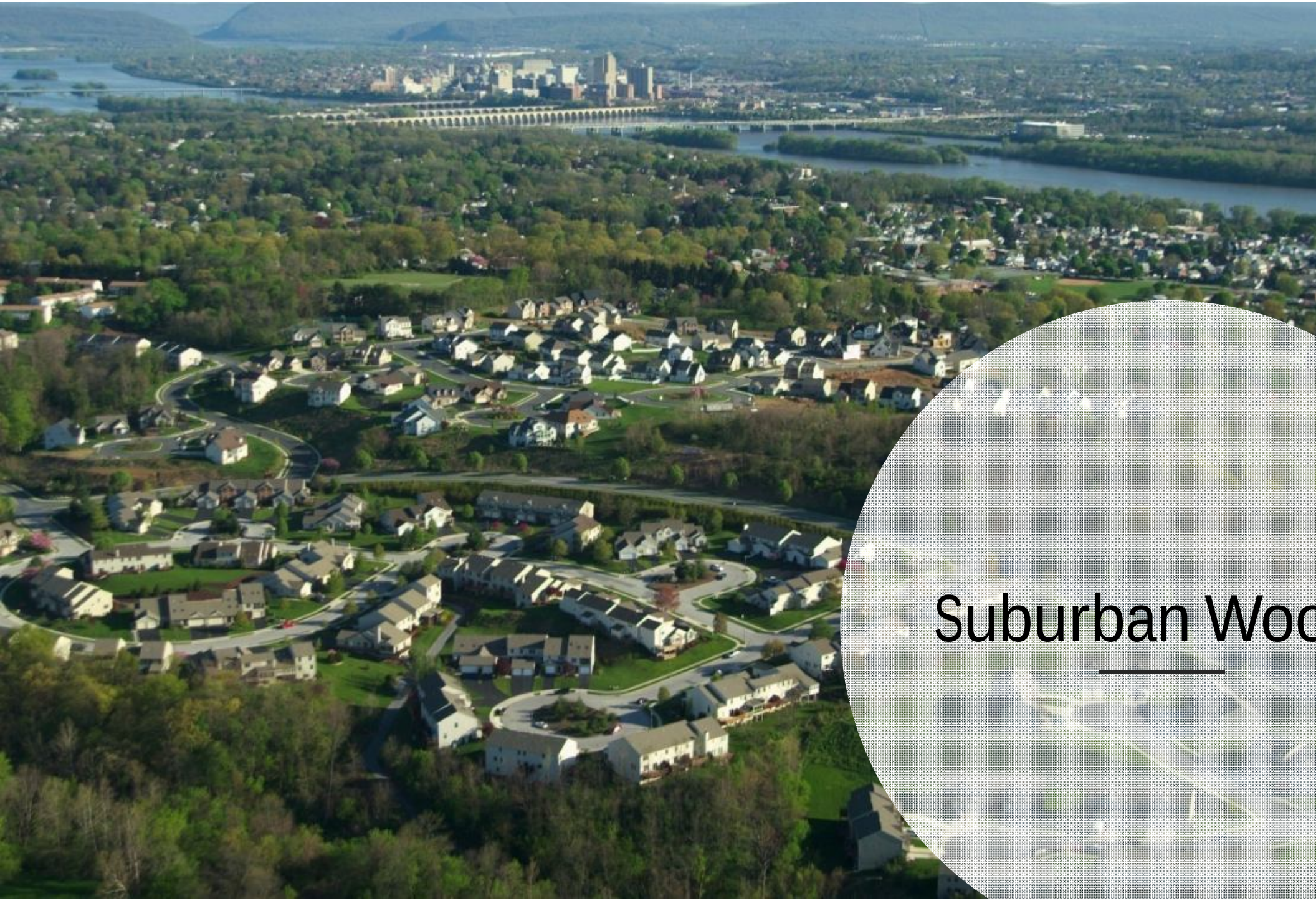

Penn's Woods Tod
16 million acres of fores
60% forested


The “Big Wood
rural woodland
public and priva



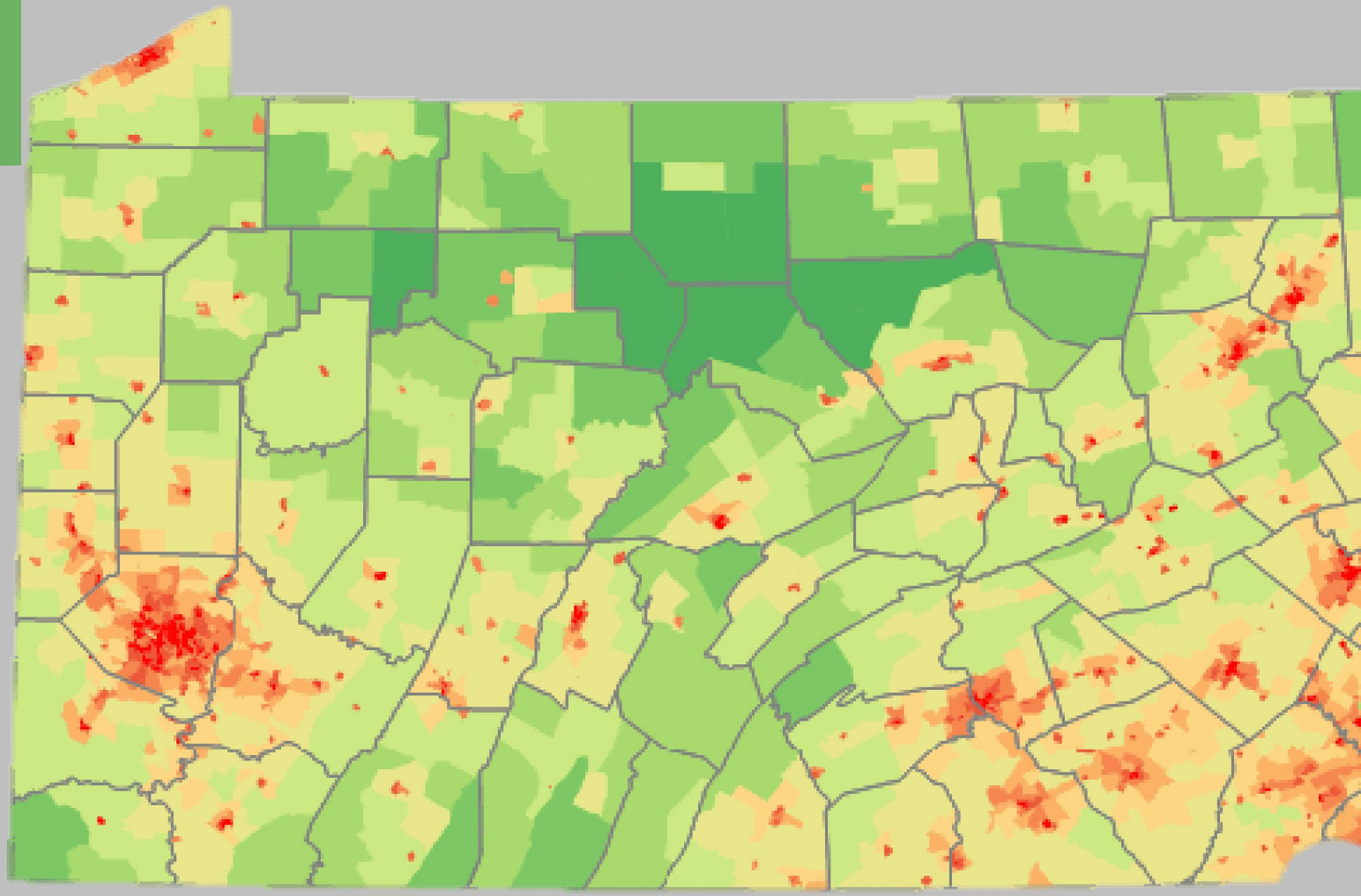
Ridge & Valle

Farm and Fore
Mosaic


Suburban Woo


Urban Wood

Penn's Woods Today



man Population: 12.8 million

(2017)



Wide range of Social, Cultural, Ecological and Economic be

/,
's Woods
de:

- clean air and water
- wildlife habitat
- outdoor recreational opportunities
- hundreds of wood products

PA Bureau of Forestry

Mission:

Ensure the long-term
health, viability and productivity
of the Commonwealth's forests and
to conserve native wild plants.





ureau of Forestry:

Conserve
Protect
Educate
Restore
Manage

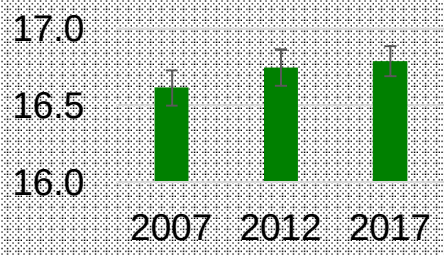


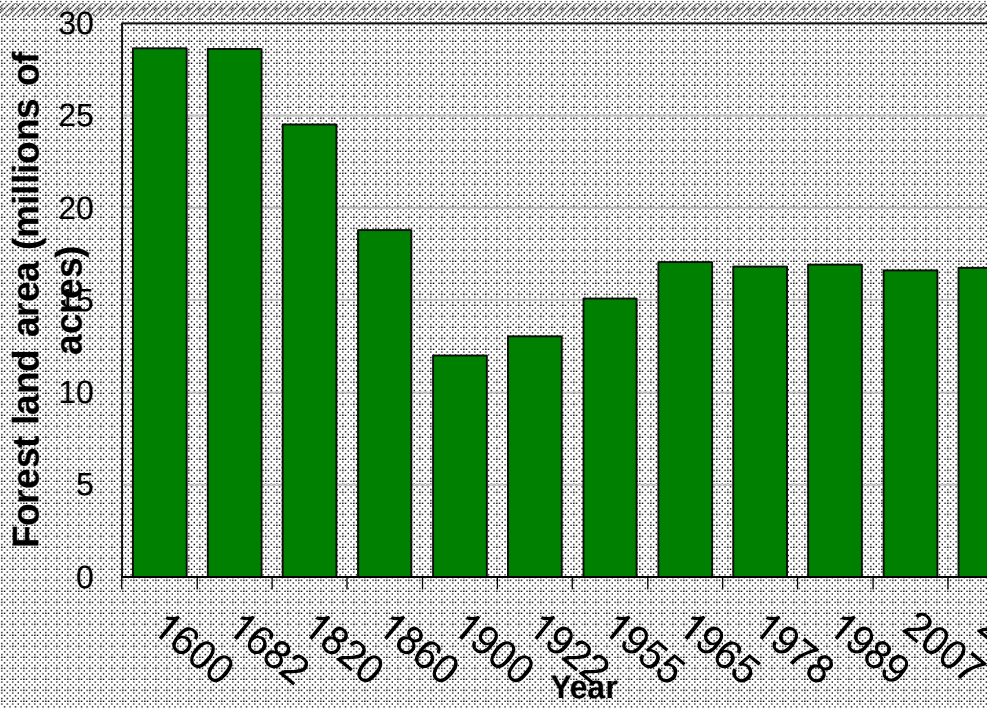






onserve





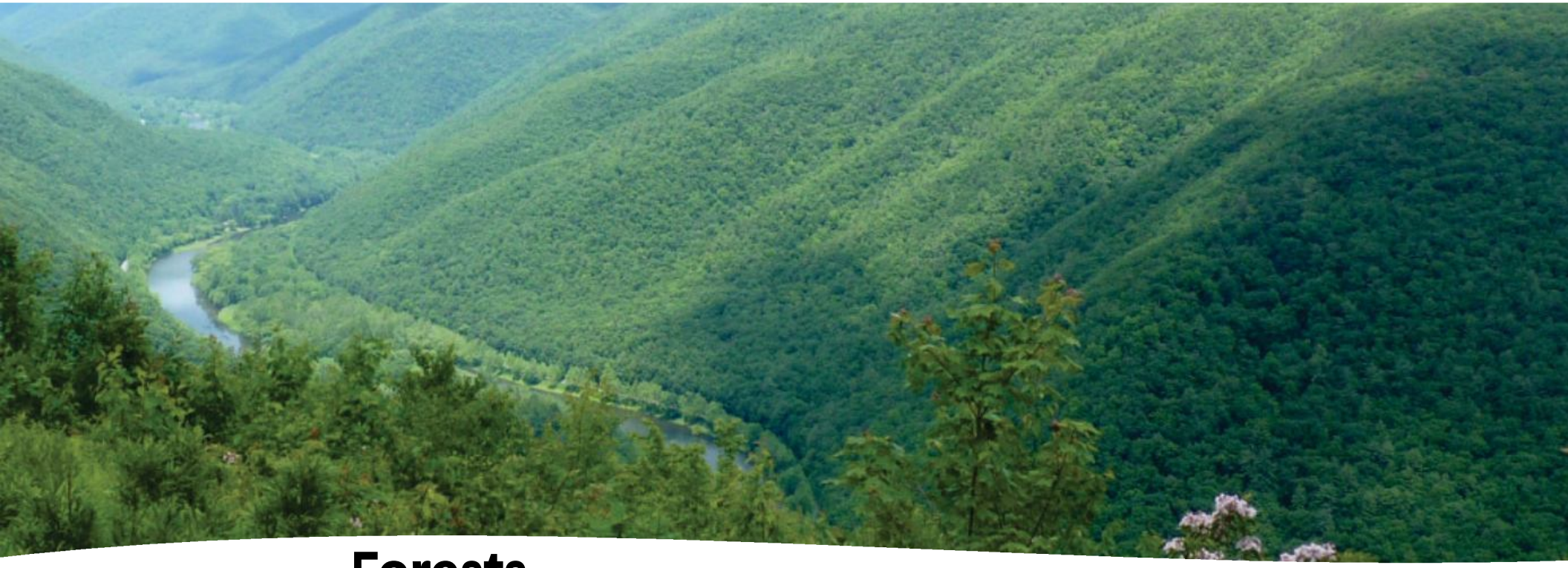
pping Forests Forests

rest land base relatively stable past 100 years

ght increase by .6% in 2017 assessment

though no significant net change occurred in PA's total forest area,

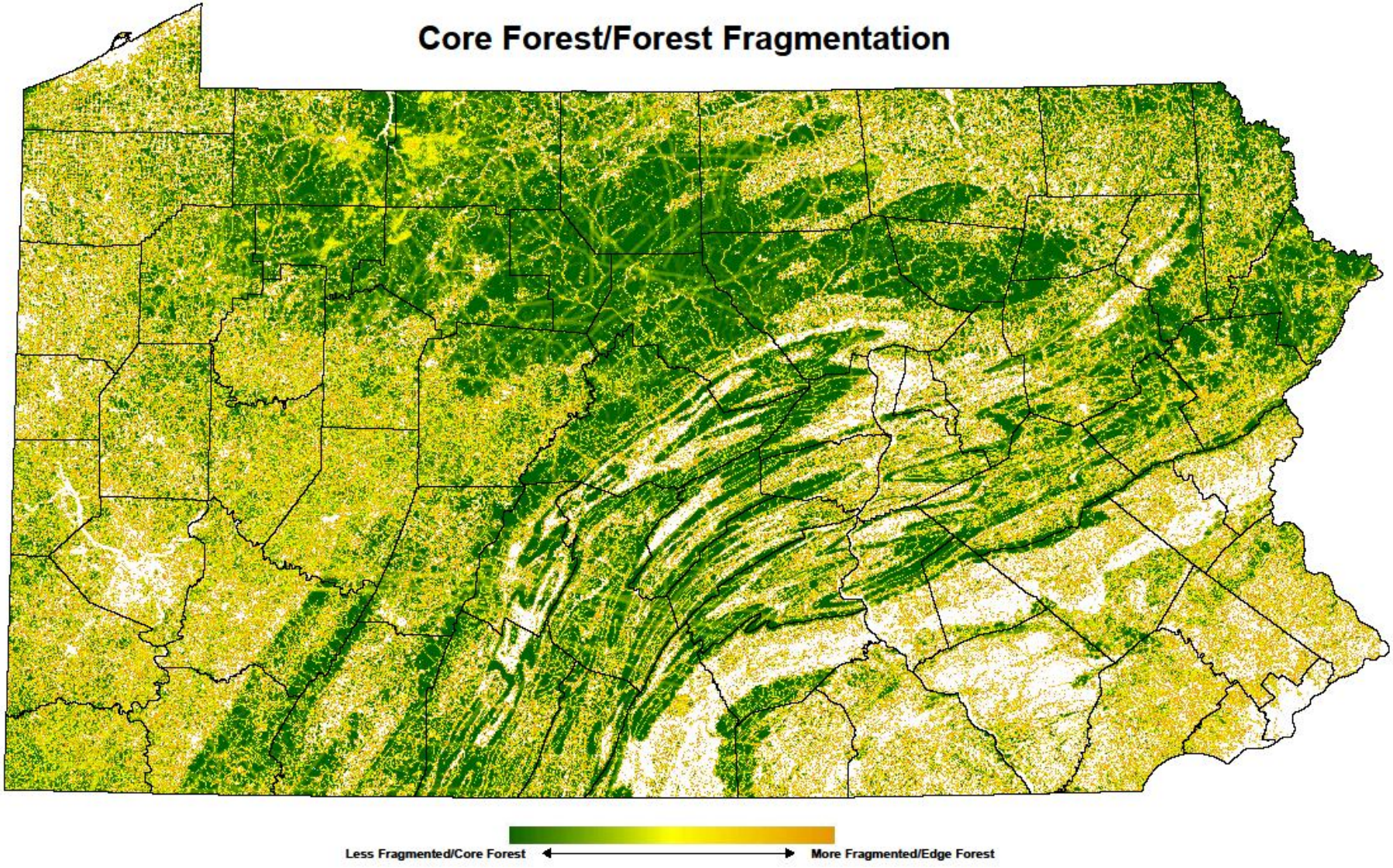
- both losses and gains in forest continue at various scales
- Gain: North-central, Central and Northeast counties
- Losses: Urban-Philadelphia and Allegheny counties
  - Large cities
  - Along major highways
- Leading to patchy/fragmented forests

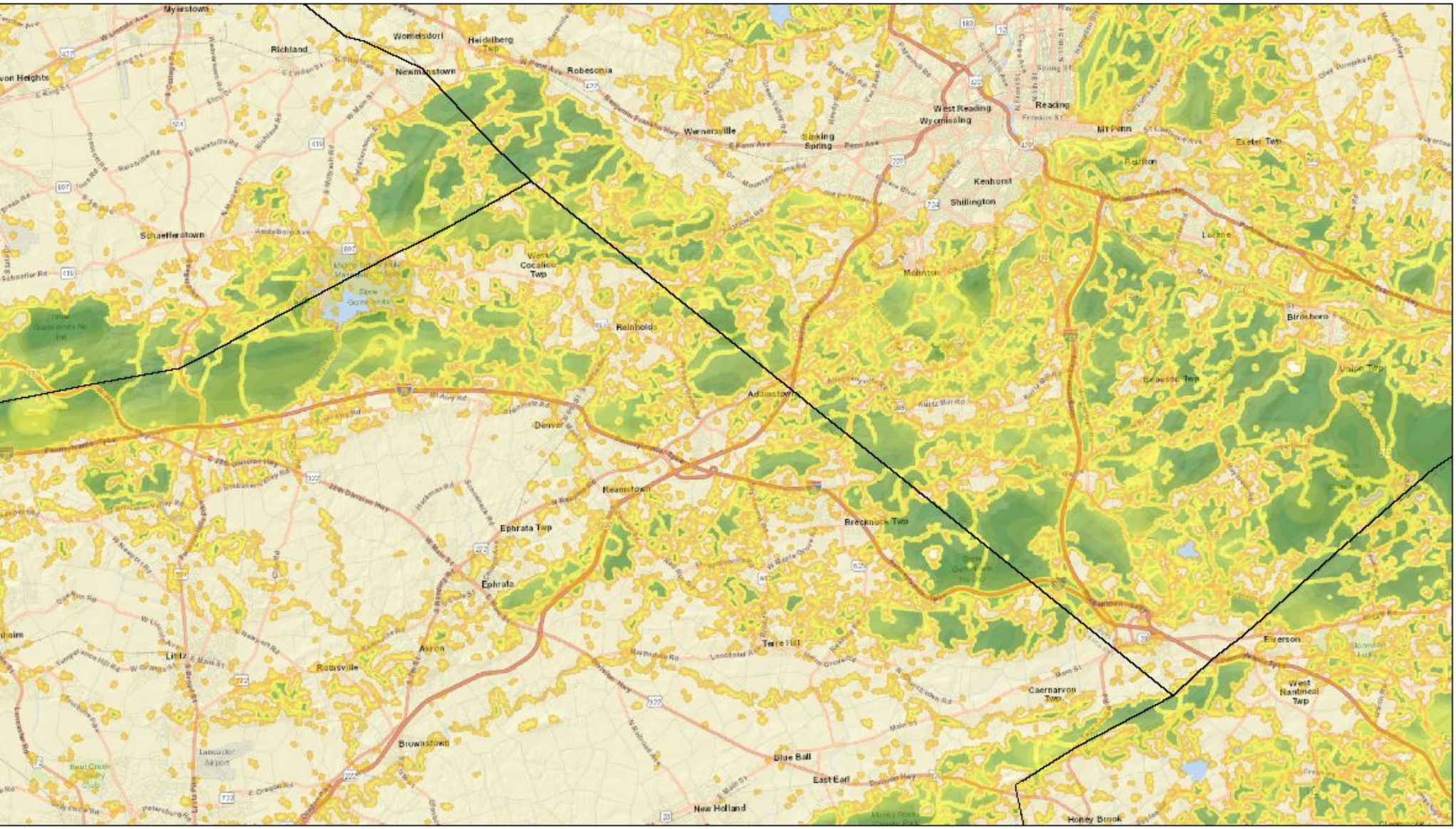


serve

Forests

- Maintain Forestland in Pennsylvania
- Approx. 70% Private Forests (12 million acres)
  - 9 million: Family 3 million: Other-TIMOs, Hunt Clubs
- Forest Land Maintenance & Renewal Depends on Cooperative Effor
  - Private Forest Landowners
  - Forest Products Industry
  - Urban & Rural Communities
  - Land Conservancies
  - Informed public


Core Forest/Forest Fragmentation
Less Fragmented/Core Forest
More Fragmented/Edge Forest

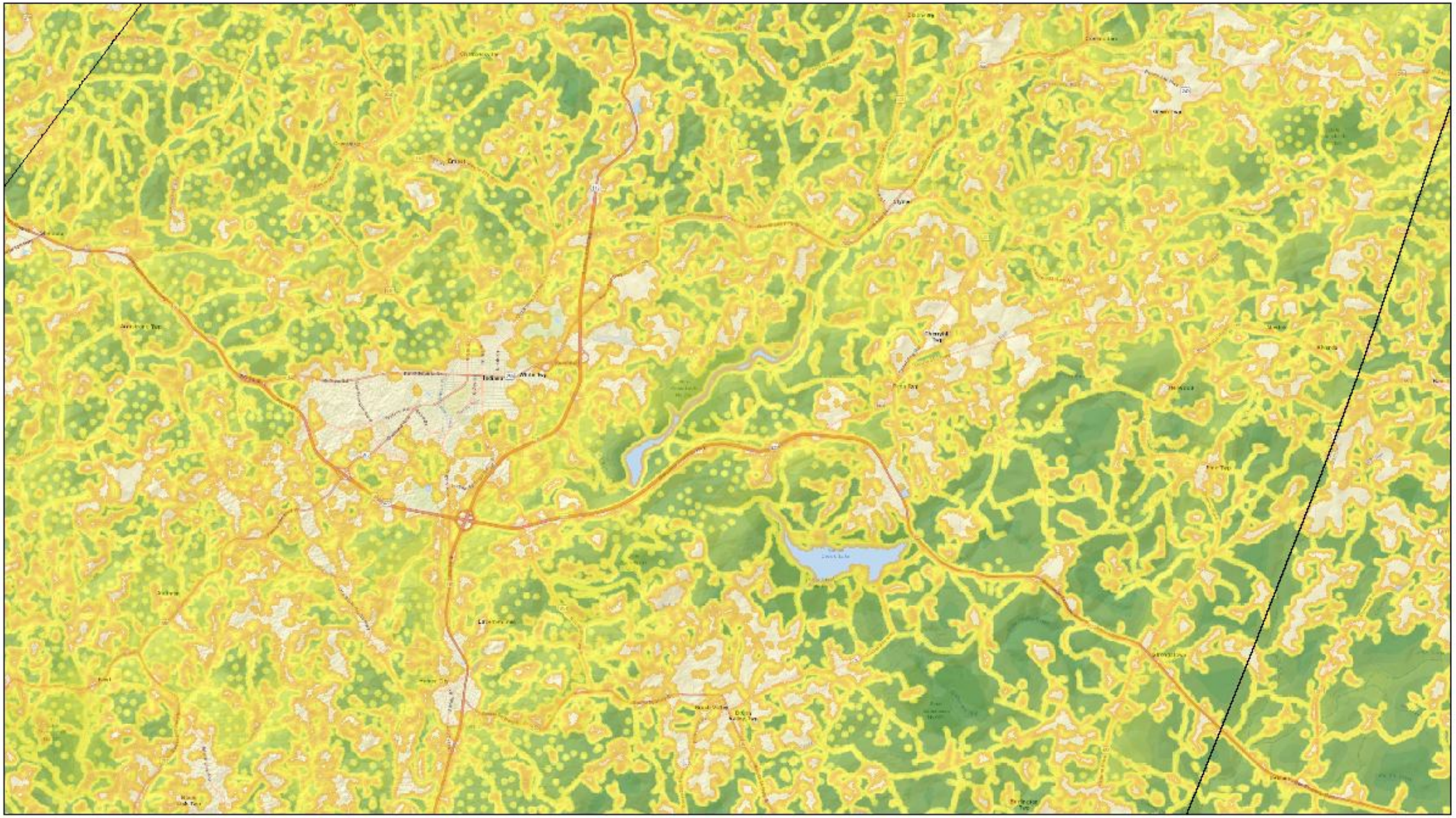


N
W E
S

Example of forest fragmentation on private land where Lebanon, Berks, and Lancaster counties meet.

Less Fragmented ← → More Fragmented/ Edge Forest

Forest Fragmentation



N
W E
S

Example of forest fragmentation on private land around Indiana, PA.

Less Fragmented — More Fragmented/ Edge Forest

Forest Fragmentation



Conserve

Native Wild Plants

- Manage and conserve native wild pl
  communities
- Across Public and Private Lands
- Determine Status and Classification
  species
  - ~2,000 native plant species
  - Of those: ~ 350 Rare, Threatened
    Endangered

lant Sanctuaries

gnizes best examples of
at for native rare plants

les:

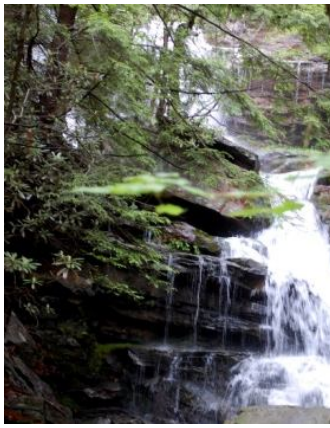
nique plant communities
oths and Butterflies

c lands—50

e lands—15















Endangered Plant Recove

- **Recovery plans: 20 species highest conservat need**
- **Actions to improve populations**
  - Seed saving & Growing Seedlings
  - Partnering with nurseries/research insti
    - Longwood Gardens, Bowman's Hill Mt. Cuba
- **Augmenting declining populations**
- **Monitoring**
- Examples:
  - *Arethusa bulbosa* (dragon's mouth orch
  - *Platanthera peramoena* (purple fringele orchid)
  - *Magnolia fraseri* (Fraser's magnolia)

otect

ent and Suppress Wildfires

inguish forest wildfires on public and private land

ff assist in suppression of ~600 wildfires on ~1,200 acres tewide

ucation, outreach and trainings: reducing wildfire risk and vention

duce Wildfire Fuels

27 Rx Fires across 2,500 acres

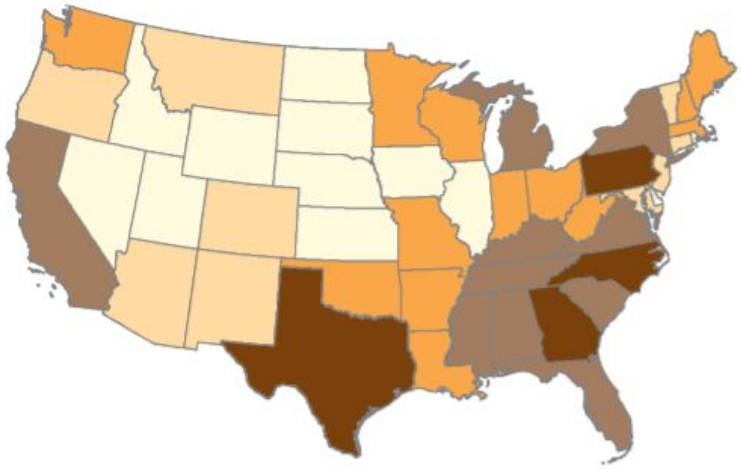
- reduce wildfire risk
- promote plant and wildlife species and habitat





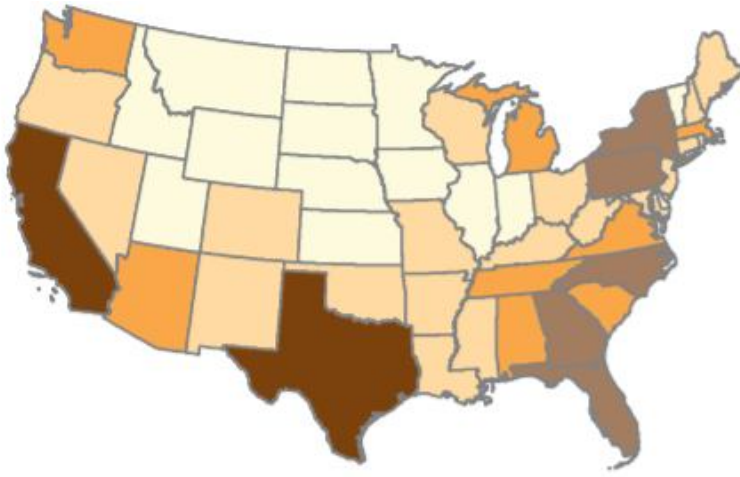
Wildland Urban Interface (WUI)

Lands and communities adjacent to and surrounded by *Wildlands* that are at risk of *Wildfires*



Area of WUI by State (km²)

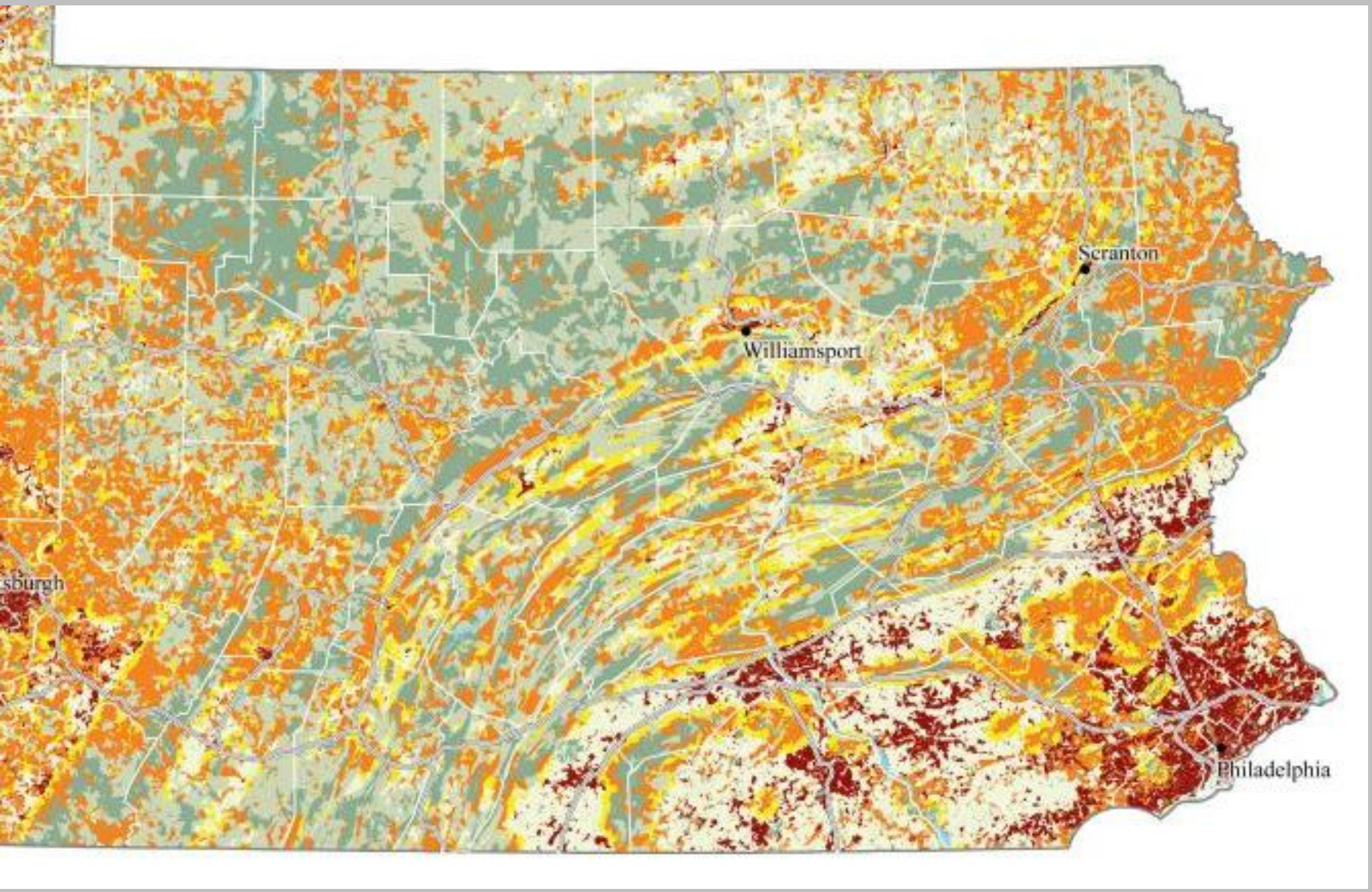
- 40,001-54,236
- 20,001-40,000
- 10,001-20,000
- 5,001-10,000
- 9-5,000



Number of Houses in the WUI by State

- 3,000,001-4,457,884
- 1,500,001-3,000,000
- 1,000,001-1,500,000
- 500,001-1,000,000
- 5,058-500,000

lland Urban Interface (WUI)



WU
10 of th
million ac
forestl

otect

tect Forests from Destructive Insects & Diseases

atewide Responsibility

onitor and Inventory

oordinate suppression and spraying efforts on
psy moth, emerald ash borer, hemlock wholly
elgid…

search insects and treatment response



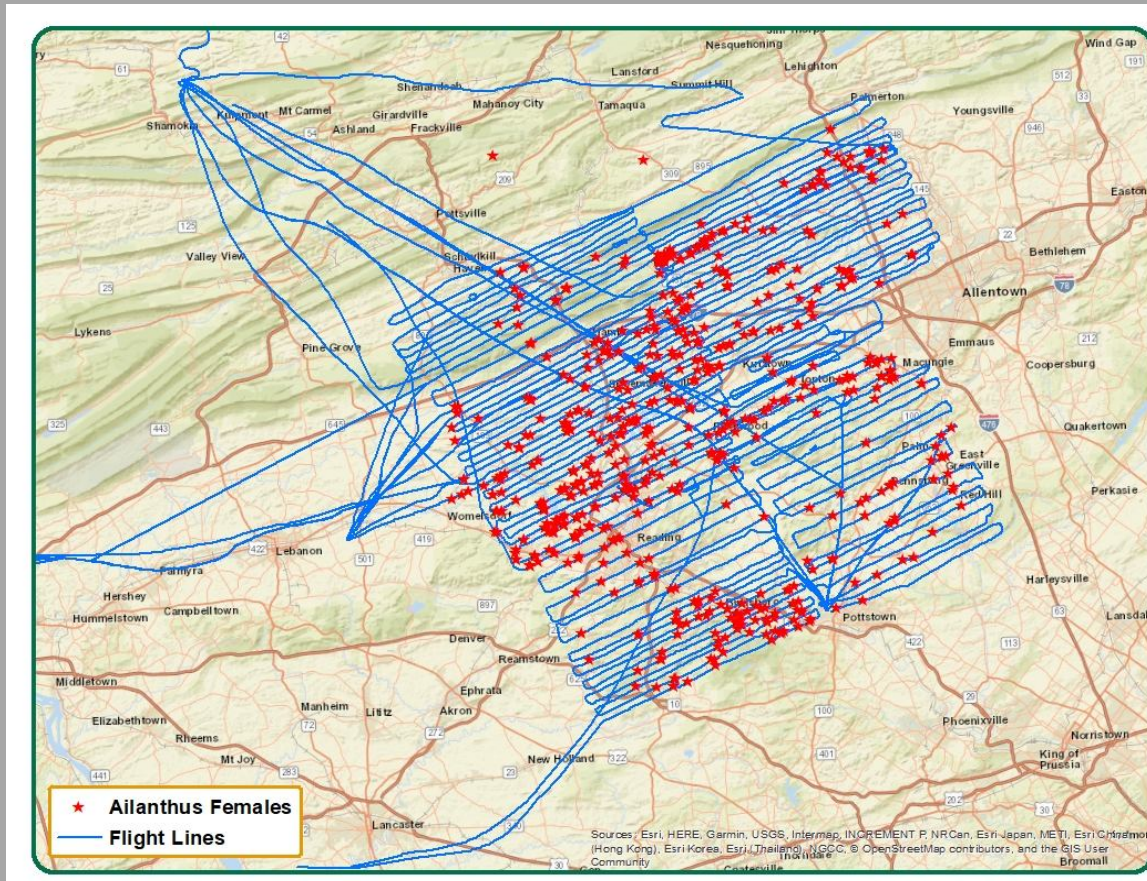


Protect








Ailanthus Females
Flight Lines
Nesquehoning
Lansford
Lehighton
Wind Gap
Shenandoah
Mahanoy City
Tamaqua
Summit Hill
Palmerton
Youngsville
Shamokin
Kingment
Mt Carmel
Girardville
Ashland
Frackville
Pottsville
Valley View
Schuylkill Haven
Bethlehem
Allentown
Lykens
Pine Grove
Emmaus
Macungie
Coopersburg
Quakertown
East Greenville
Perkasie
Womelsdorf
Reading
Lebanon
Palmyra
Harleysville
Hershey
Hummelstown
Campbelltown
Pottstown
Denver
Reamstown
Middletown
Ephrata
Manheim
Lititz
Akron
Elizabethtown
Rheems
Mt Joy
Phoenixville
Norristown
New Holland
King of Prussia
Lancaster
Broomall
Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri Thailand, (c)GCC, © OpenStreetMap contributors, and the GIS User Community

reeVitalize®

DCNR partnership to restore tree cover in PA communities

www.treevitalize.net





Restore

Tree Planting and Forest Restoration

- Grants, coordination, tracking
- Urban & Community
- Tree Tender Trainings
- TreeVitalize Grants
    - over 4,700 community & urban trees planted

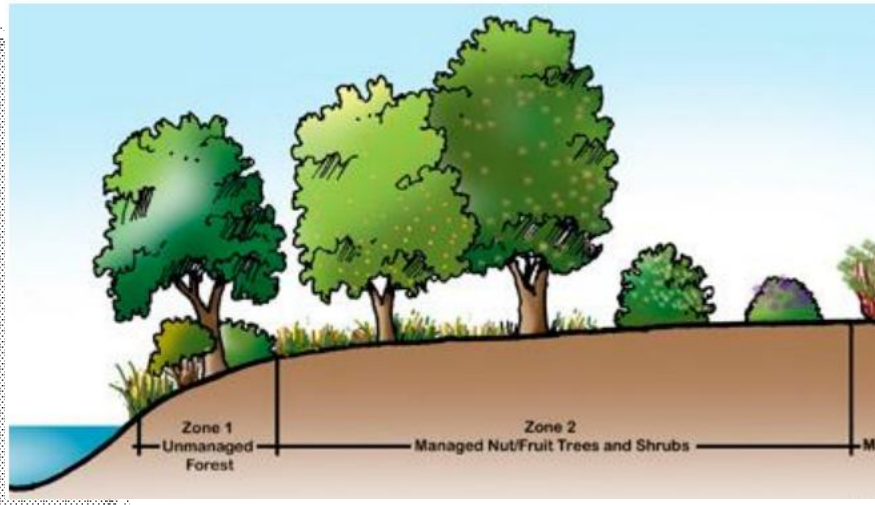
store

st Riparian Buffers

required to meet EPA targets for TMDL nutrient and diment requirements under the Chesapeake Bay reement.

als by 2025:

- plant 80,000 acres of Riparian Forest Buffers
- 15,000 urban/suburban trees (~ 50 acres)
- Turf to Trees or Turf to Native Habitat
  - Convert grass to trees or native grasses or shrubs
  - provides significant nutrient reductions for storm water and critical pollinator habitat

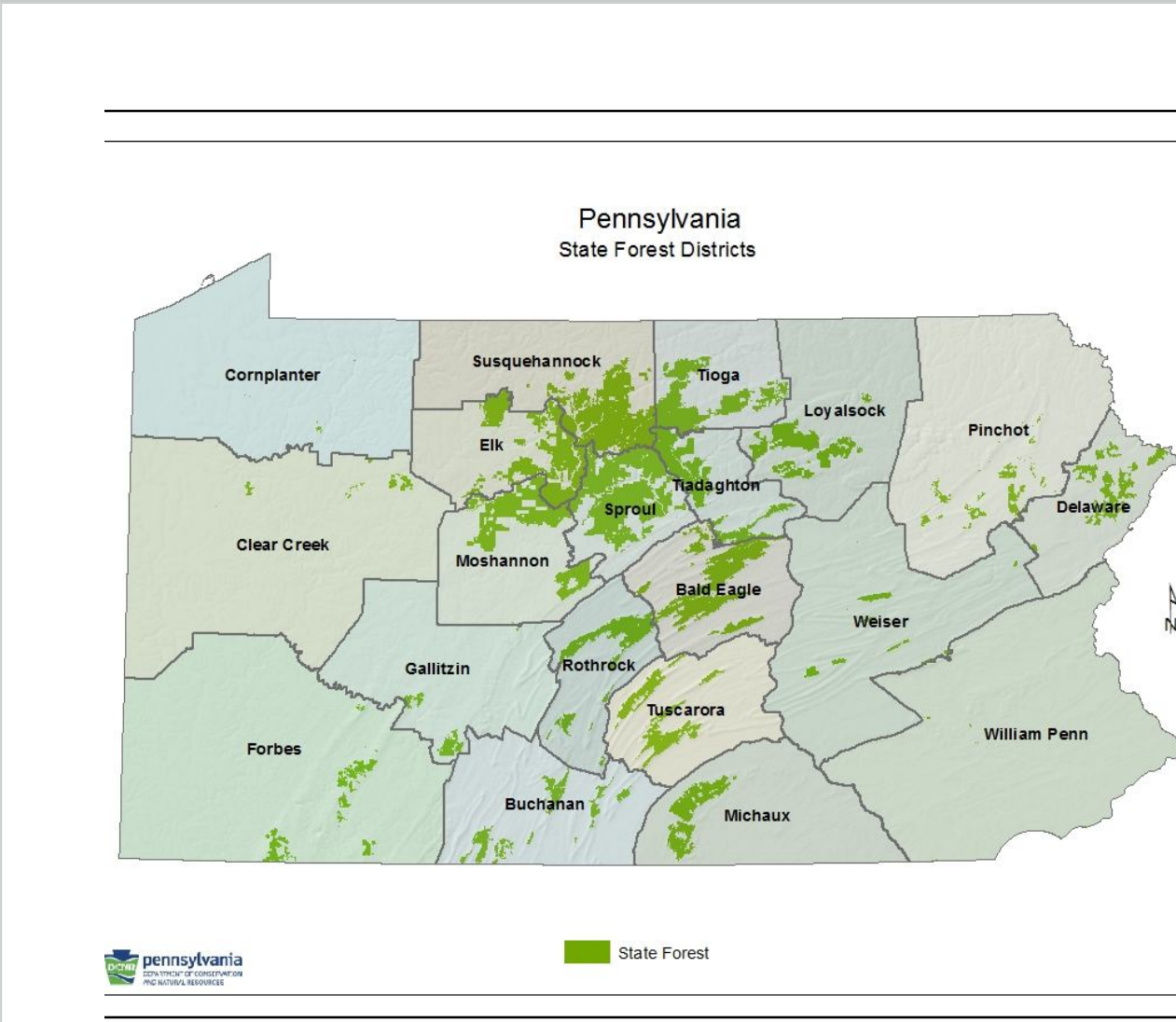




nage

orest Lands

- ion acres
- 7 counties
- est Districts
- f Commonwealth's forested area
- om, Demonstration Area, & aboratory





Certified Well-Managed Forest

st Stewardship Council & Sustainable Forestry Initiative

e of largest certified forests in N. America

vironmental, Social, Economic principles & standards

- Landscape level assessments
- Conservation Zones for communities and species
- Biodiversity, safety, sustainability
- Public Outreach

FSC

FORESTS FOR
FOREVER

SUSTAIN
FORESTR
INITIATIV

SFI-00001

nage

ate Change Adaptation

e Vulnerabilities and Strategies to address them

munications Key

eing changes

escribe issues, approaches and results: web or trainings

mentation:

rt of day to day decision-making;

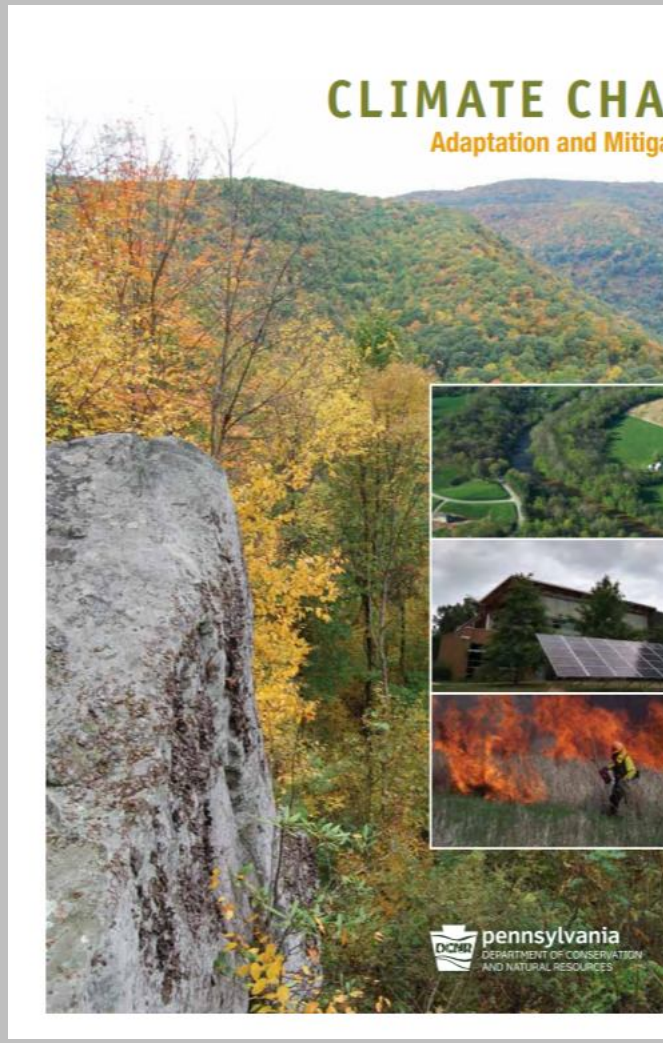
ot Area South Mountain

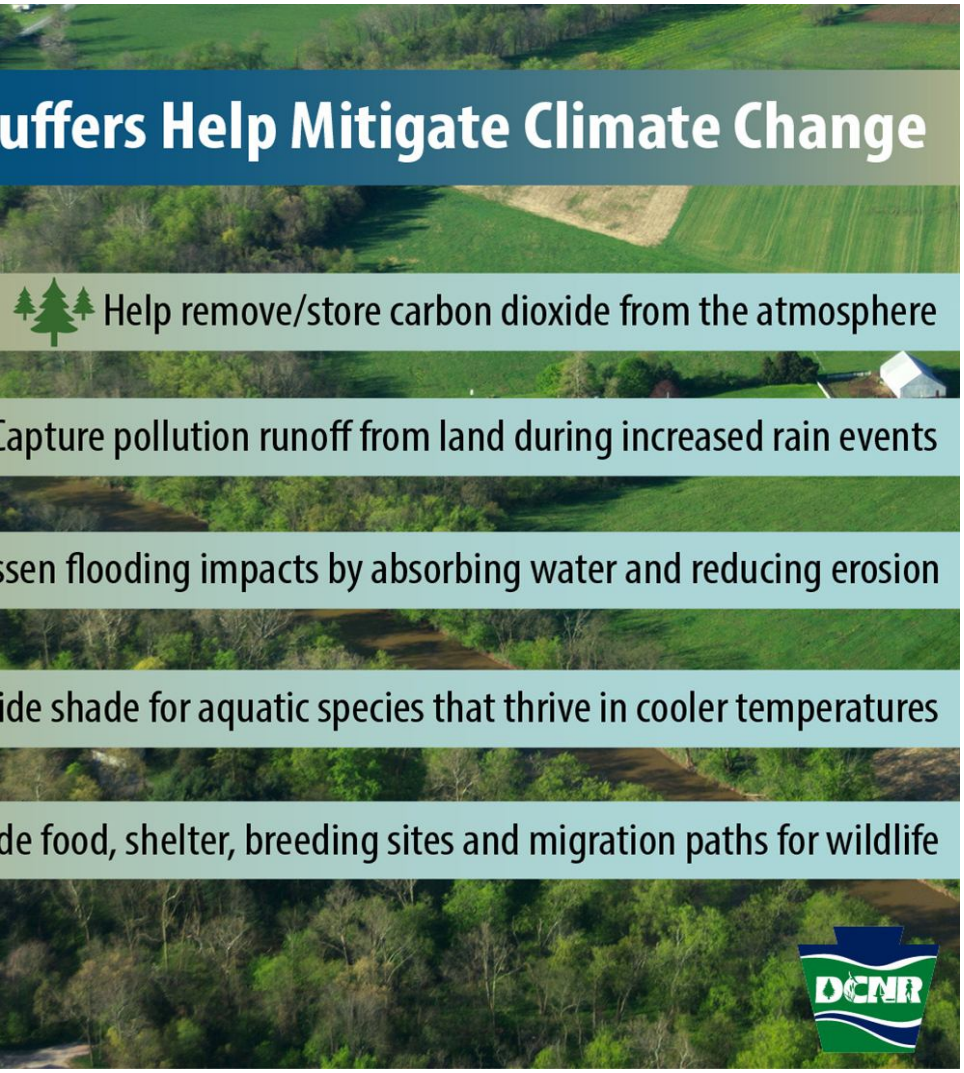
te Change Work Group or Committee

cilitate plan implementation, monitoring, communications

Forest Management

re Resiliency & Reduce Risk

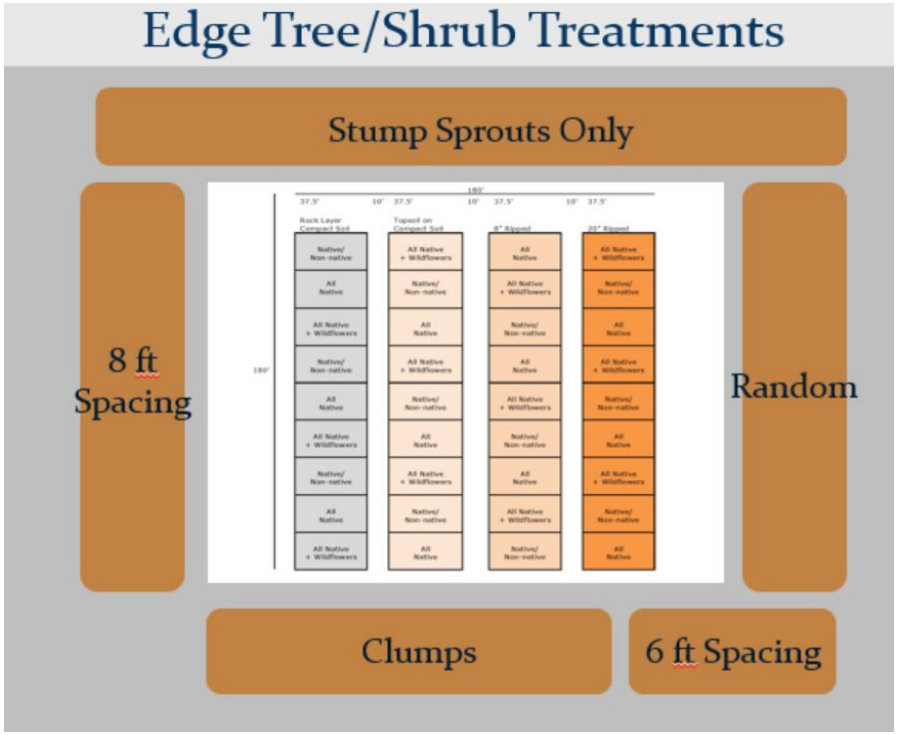


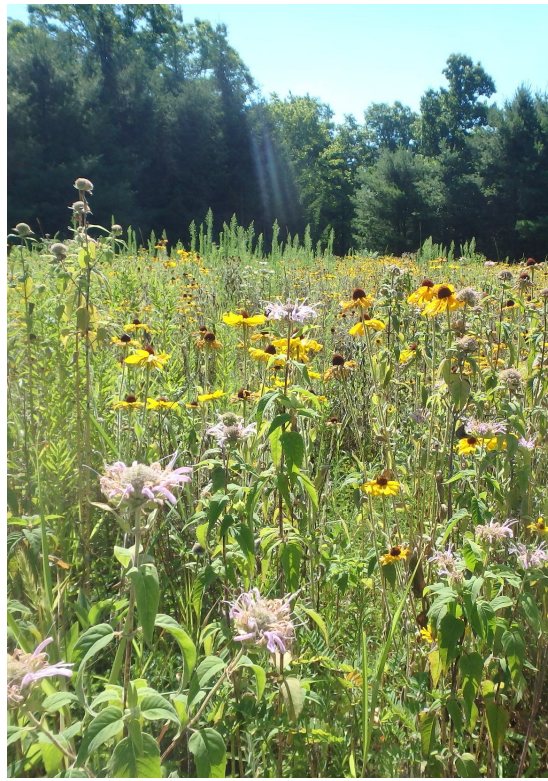




Managing for Climate Change







Manage

Mock Well Pad Restoration

anage

phaned and Abandoned Wells

cy Wells Across Pennsylvania

te Forests & State Parks
0 Orphaned & Abandoned wells
. million to plug– 400 of the Orphaned
essing legacy wells, ownership etc.
ety, Health, Environmental Impacts











Manage

Vernal Pool Protection
Daylighting & Habitat Creat

- Removed select trees and brush to create
  open habitat around a series of vernal po
- Some trees placed directly into pond to c
  turtle basking habitat







Manage

Vegetation Impact Protoco

- Assess vegetation impacts by deer throu
  tracking indicator plants on permanent p
  - Large False Solomon's seal
  - Trillium
- Monitor changes and adapt managemen
  necessary based on conditions

ucate

odland Stewardship

% of PA's Forests Privately Owned

0,000 landowners & 11.5 million acres

ventory & Report Conditions of Forest

nserve and Sustain Working Forests

ucation & Outreach

- PA Forest Stewards
- Woodland Owner Associations
- Stewardship Demonstration Forests
- Women and Their Woods
- Engaging Youth





ucate

note Benefits of Trees & Forests

cover in communities helps:

- Provide clean air and clean water
- Manage storm water
- Provides shade and cooling
- Conserve Energy
- Revitalize main streets and towns
- Reduces stress and anxiety





ate

, Water & Soil

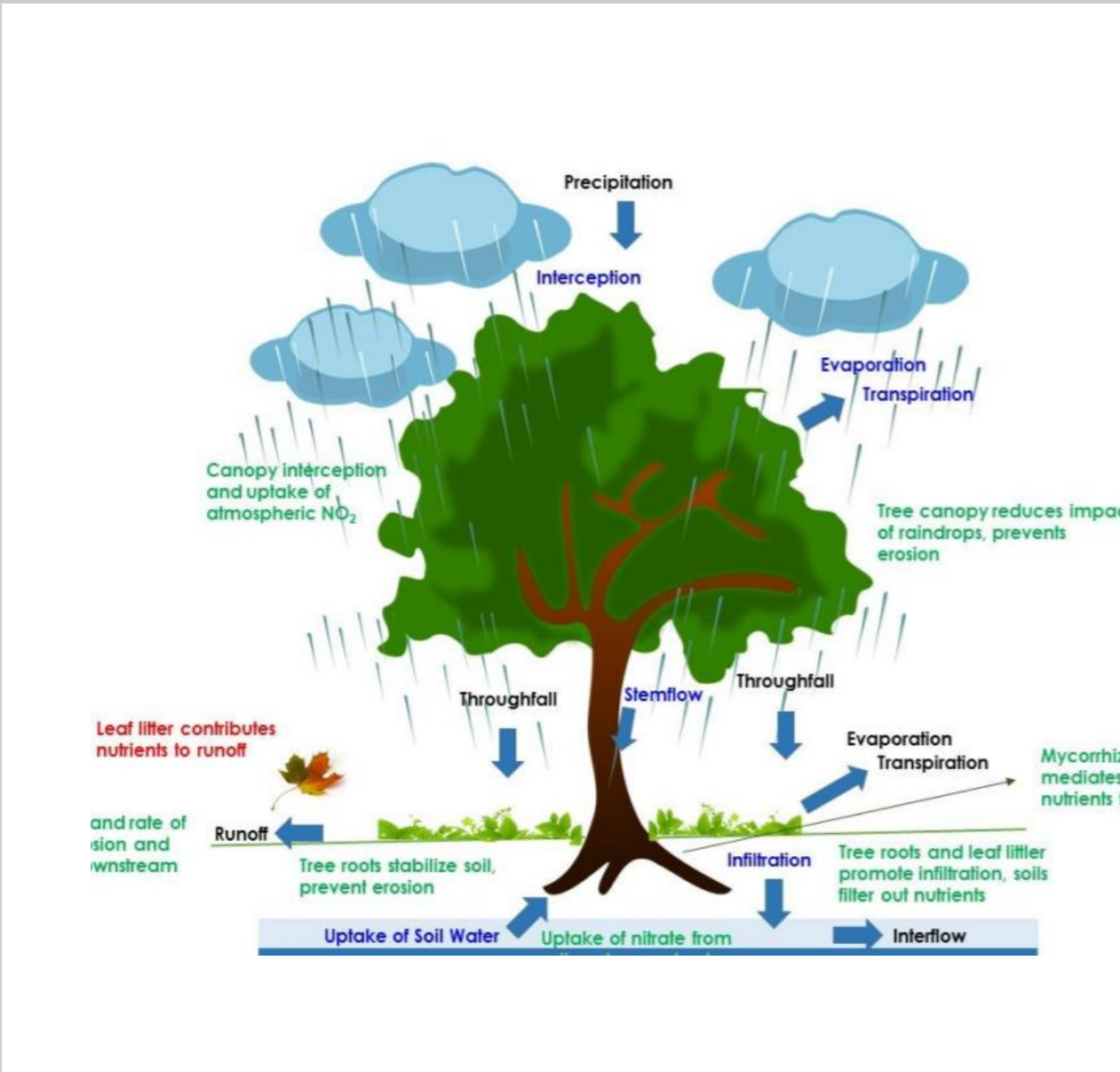
& Plants:

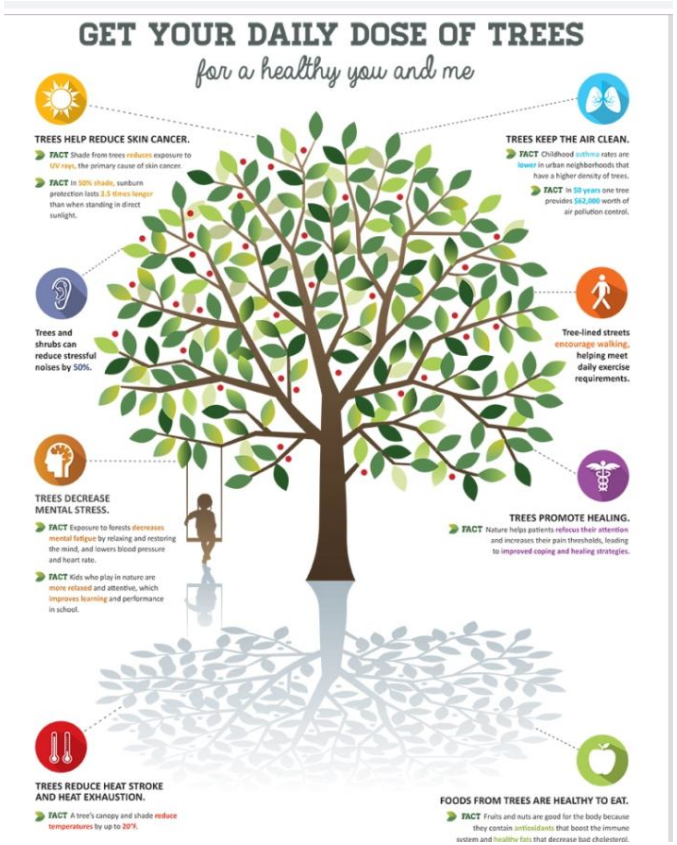
oduce Oxygen & Absorb Carbon oxide

duce Air Pollution by absorbing ses

ing Filters:

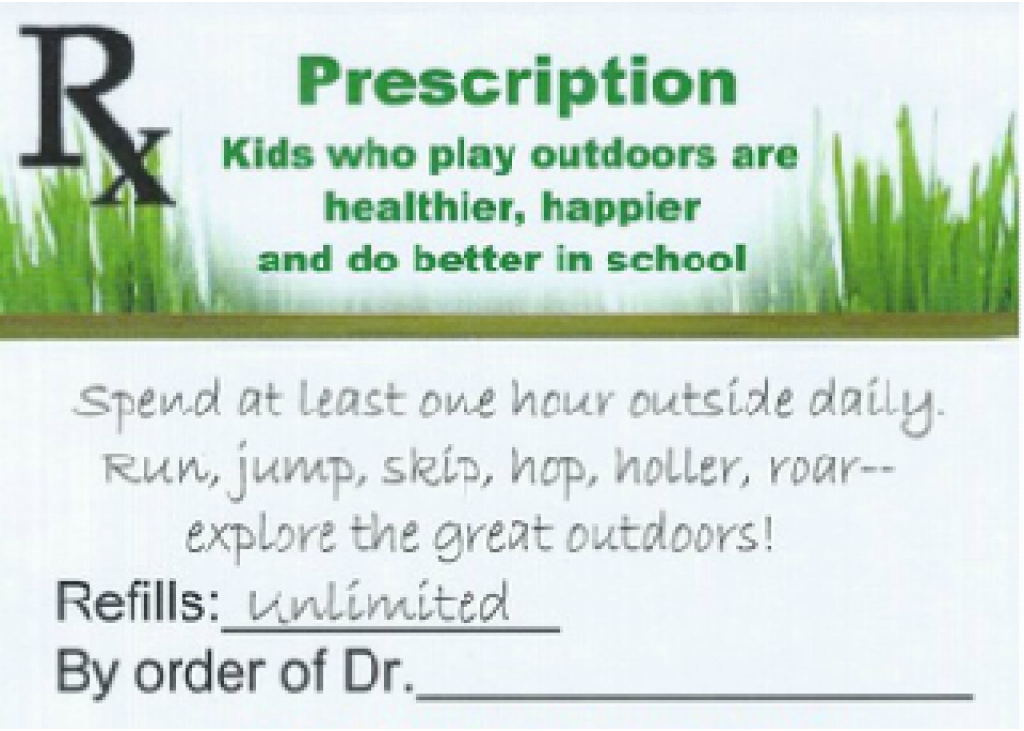
- Pollutants filtered through plants, roots, soil
- Vegetation helps slow down runoff—decreasing sediment
- Rainwater flows through plants and soil…ultimately to streams







Health Benefits of Trees


Rx
Prescription
Kids who play outdoors are healthier, happier and do better in school
Spend at least one hour outside daily.
Run, jump, skip, hop, holler, roar--
explore the great outdoors!
Refills: unlimited
By order of Dr._____


Name For kids of all ages
Address _____ Date _____
Rx
Make two mud pies and you won't need to call me in the morning
BE OUT THERE
NATIONAL WILDLIFE FEDERATION
MD Mother Nature
Signature _____



National & Regional

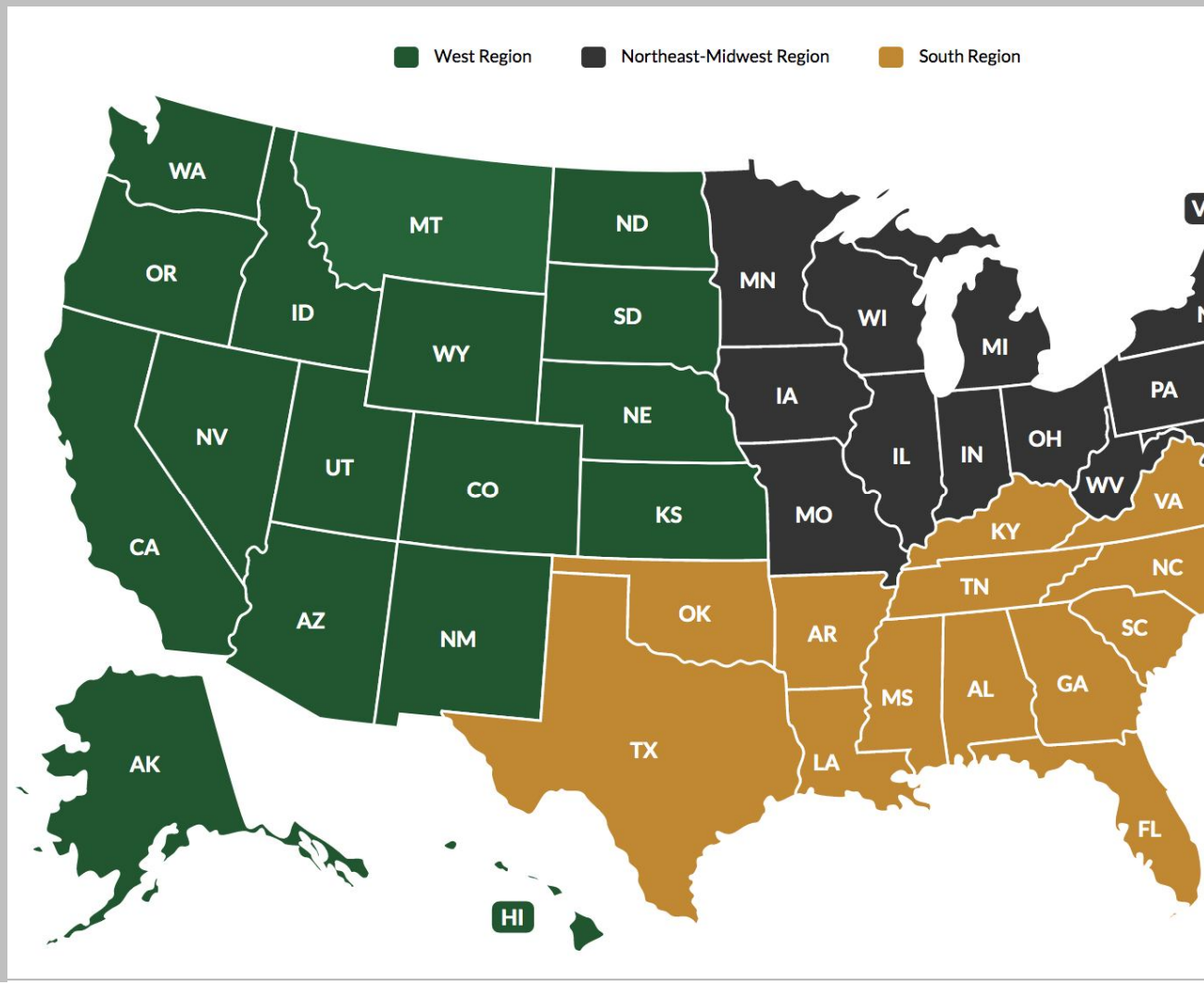
Forester role

ational Association of State Foresters

ortheast Region

S. Forest Service





ational Influences & Priorities

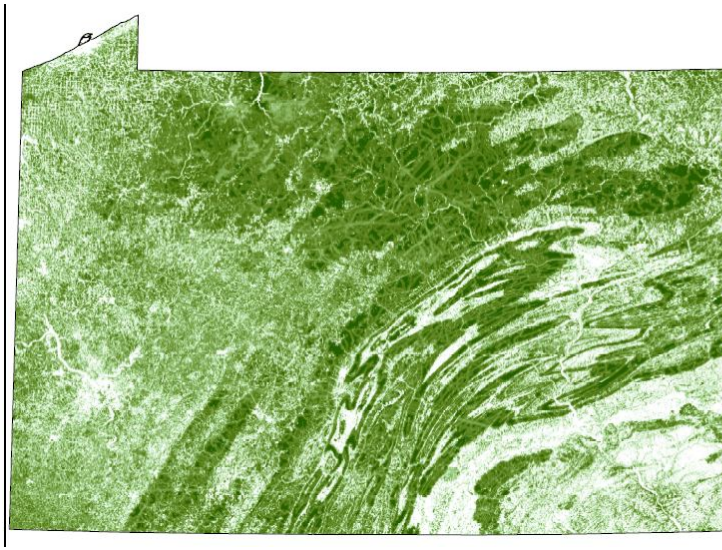
Conserve Working Forest Landscapes

- Reduce rate of conversion of forests

Protect Forests from Harm

- Wildfires
- Insects and Diseases
- Forest Resiliency

Forest Products and Emerging Markets





tional Influences & Priorities

tainable forest management across all ownerships

nefits of Trees and Forests

- Awareness of and support for forests
- Watershed Planning
- Linking Health and Well-being of community from trees

ared Stewardship



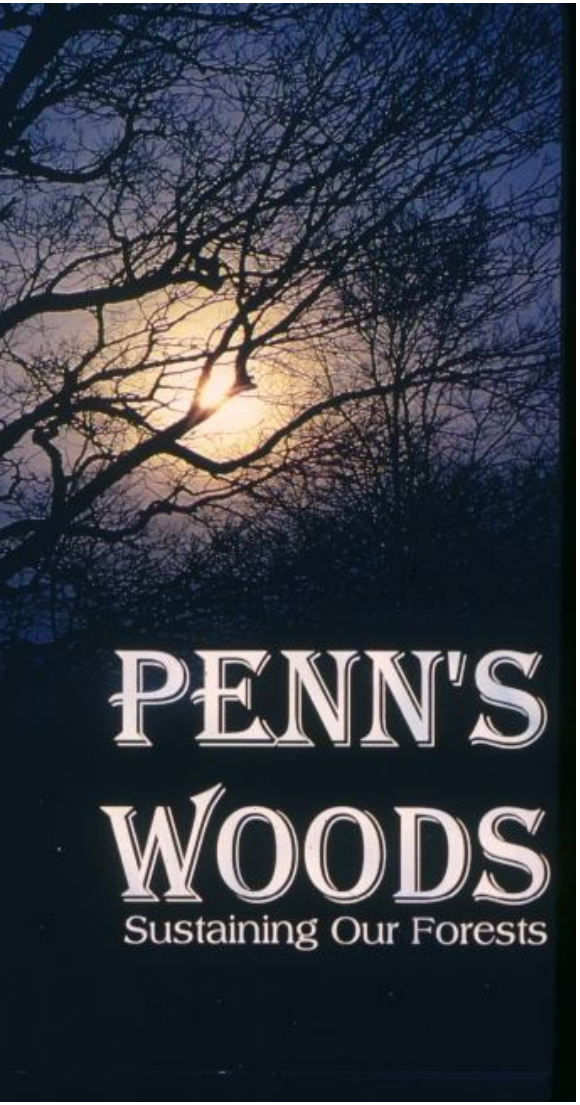

Pennsylvania

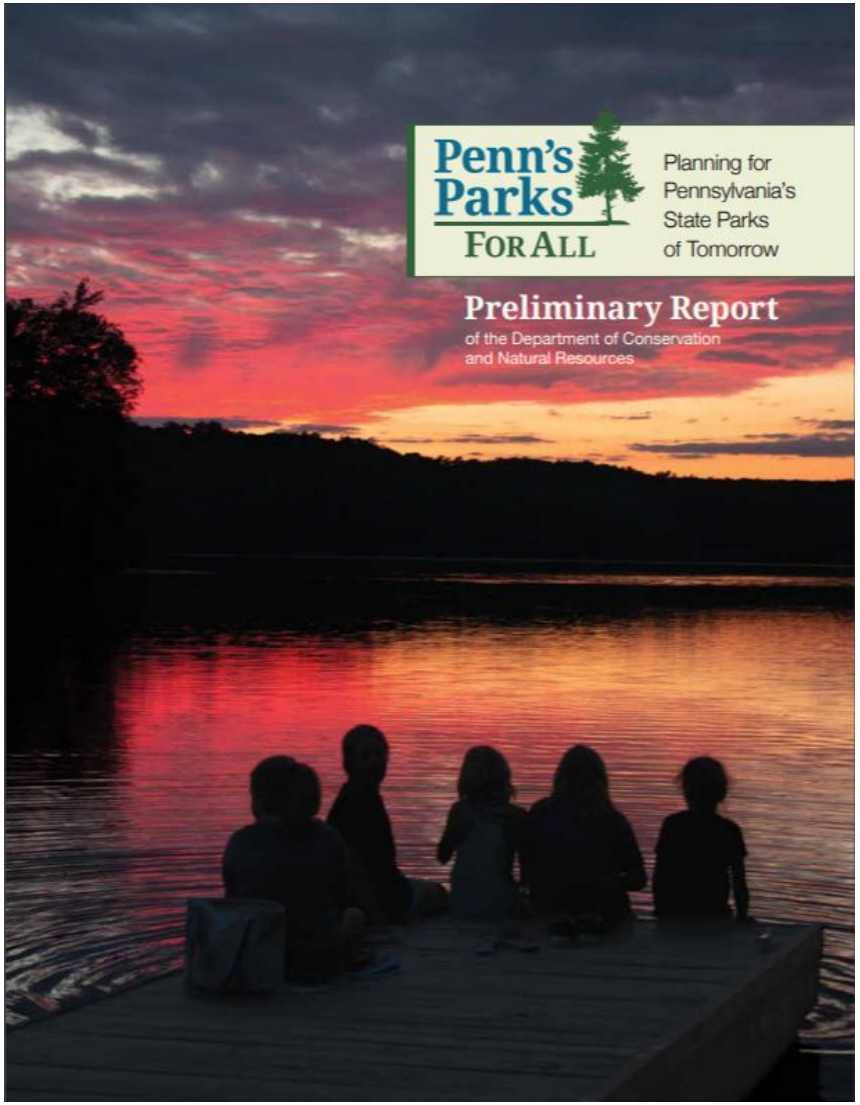


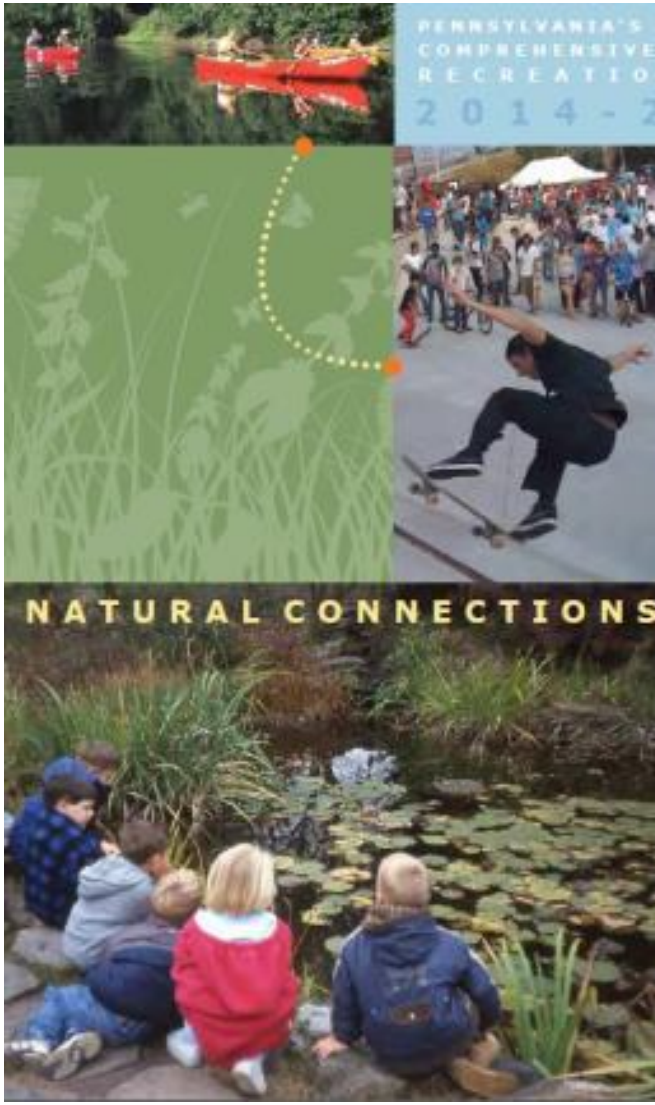




Planning Efforts & Public Feedbacl







DCNR Strategic Planning

nning - statewide

gic Plan: Penn's Woods 1995

tablished bureau's current mission

oved toward Ecosystem Management

t broad direction for managing state and private forest sources

ecades

Forest Action Plan 2010

dmap for investing federal, state, local, and private resources ere they can be most effective in achieving national servation goals

essment of Forest Conditions

tegy to address them

ears







FOREST ACTION PLAN

ACHIEVING LONG-TERM FOREST SUSTAINABILITY

Pennsylvania, or Penn's Woods, provides countless benefits and services to its
Pennsylvania's 17 million acres of forest provide a vast array of values, includi
water, recreation opportunities, wood products, and habitats for thousands of
animals. Understanding the forest's status and condition is necessary to conse



Potential Strategic Issues

nsylvania Trends & Strategic Issues

vasive Species

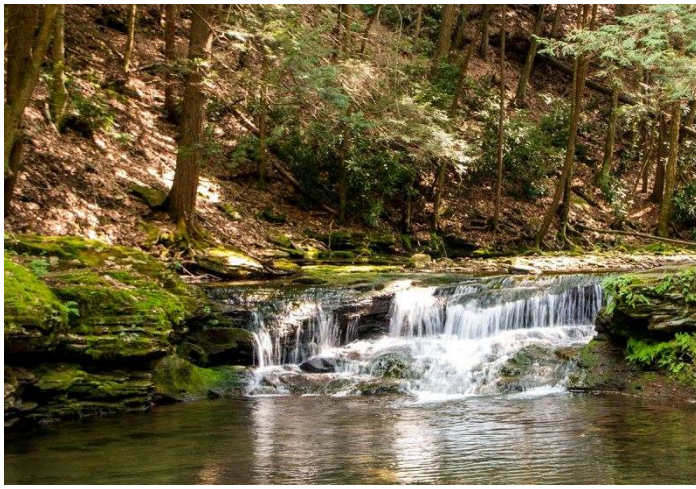
- Forest pests and diseases
- Non-native plants

imate Change and Resilience

ative Wild Plants & Ecological Resources

ater Conservation

portance of Forests & Trees (Societal Benefits)





nsylvania Trends & Strategic Issues

Forest Land Base

- Keeping forests as forests
- Ownership changes, parcelization

Forest Recreation and Access

Sustainable Forest Management

- Private Lands & SF Lands

Wildland Fire

- Prescribed Fire
- Wildfire

Forest Products & Working Woods





at's Next in Strategic Planning?



Penn's Woods:

- Receive/Review Public a Stakeholder Feedback
- Discuss Strategic Opport Issues
- Action Plan Due June 20
- Bureau of Forestry Strat 2021

SCORP:

- Last day poll
- Get comments next two

Penn's Parks for All:

- Dec 31st

rting Thoughts....

ts, organizations, societal values & expectations changing

- Biodiversity; Private Forests; Ecosystem Management
- Wildfires: 340,000 acres in 1915 to 1,800 now
- New research, data, technology

" challenges of today

- Invasives
- Diversity—species and age class
- Stressors—extreme weather, species declines
- Increased Recreation
- Deer
- Forest Conversion









Encouraged by…

Love of PA's Forests

- Values
- Natural Resources Rich State

Youth

- Pennsylvania Outdoor Corps
- PLT: National Education Operating Committee Board

Outreach Opportunities

- Mobilize our Collective Creativity
- Shared Messages
- Borrow from others
  - Trees Work; Healthy Trees, Healthy Lives; Wood Work; My Tree, Our Forest
  - Wheels to Woods

Project Learning Tree®



x forward to...

g & New Strategic Plan

bility

ing in this Changing
nment

e is Constant

ation Key to Changes

ships & Sharing Resources

y Leadership

