



Urban Deer Management

Martin's ^{for} Landing Residents

Overview

- WRD/UWP overview
- History of management
- Management today
- Biology
- Ecoregions and habitat
- Human expansion
- Local factors
- Importance of management
- Impacts
- Management techniques
- Community benefits
- Future of management

Wildlife Resources Division

Mission: To conserve and promote fishing, hunting, and wildlife resources through management, education, and scientific research.

Three sections:

1. Wildlife Conservation Section
2. Fisheries Management Section
3. **Game Management Section**

To find out more about what we do, visit: <https://georgiawildlife.com/about/what-we-do>

Wildlife Conservation Section Annual Report:

<https://view.publitas.com/georgia-department-of-natural-resources/dnr-2024-wcs-comprehensive-report/page/1>

Game Management Section Annual Report:

<https://view.publitas.com/georgia-department-of-natural-resources/wrd-gm-annual-report-fy24-final/page/1>



Urban Wildlife Program



Mitigating human-wildlife conflict in Atlanta & Savannah

1) Research

- UGA – coyote project
- UWIN – Savannah
- GDOT – culvert project

2) Education & Outreach

- Public events
- Youth camps
- IUWC 2025

3) Technical guidance & on-site response

- Big game/dangerous game
- Public health/safety emergency



For more info on the IUWC, click here:

<https://www.urban-wildlife.org/>

<https://www.urban-wildlife.org/past-conferences>

Urban Wildlife Program

FY26 goals:

- Program expansion
- Increase public awareness for UWP and our role in urban deer management
- Collaborate with local leadership to establish community-led deer management practices



Deer Management in Georgia

Early colonial period

- Habitat loss and over-harvest
- Importance of conservation is realized
- First hunting regulations implemented

1900's

- Restocking efforts led by Ranger Arthur Woody
- *Pittman-Robertson Act (1937)*
- Major restocking programs began

For more on Arthur Woody and his contributions to deer management in GA, visit:
https://georgiawildlife.com/sites/default/files/wrd/pdf/management/1928-1974_Deer%20Restocking.pdf



Pittman-Robertson Act (1937)

Federal Aid in Wildlife Restoration Act of 1937 provides direct funding to state and federal wildlife agencies for conservation, habitat management, and scientific research.

How it works:

10-11% excise tax on:

- Guns & ammo
- Archery equipment

Funds conservation & research

- State size
- # of hunters

More hunters = More conservation \$\$



Deer Management Today



Population is stable

- ~1.3 million deer in GA

Regulated season

- September – January

Bag limit

- No more than 10 antlerless
- No more than 2 antlered

Antler restrictions

- 4 points $\geq 1''$ in length (one side)

OR

- Outside spread $\geq 15''$

General Biology

Health & Lifespan

- 4-8 years; varies greatly

Behavior

- Generalist species
- Crepuscular
- Females form social groups

Size & Weight

- Adults ~3ft at the shoulder 90-300lbs
- Fawns born 4-8lbs

Physical Characteristics

- Antlers grown by males; shed and regrown annually
- Red-brown coat (*summer*)
- Gray-brown coat (*winter*)

Breeding

- "Rut" (*October-December*)
- Gestation period ~200 days
- Fawning (*May-June*)

Diet

- Concentrate-selector
- Grasses, forbs, hard/soft mass
- Diet changes with seasons

Habitat

- Food, cover, water
- "Edge-habitat"

Habitat



Ecoregions

6 Ecoregions

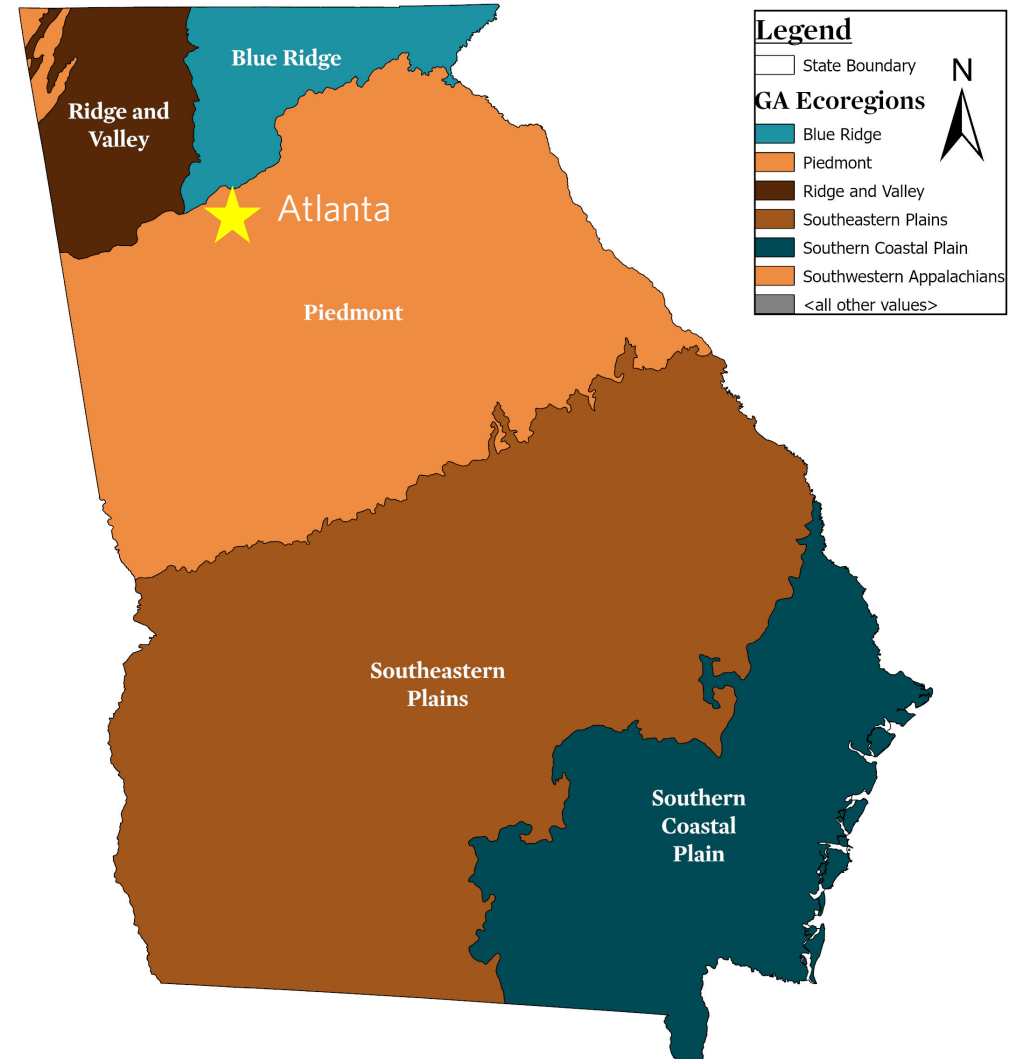
- SW Appalachian
- Ridge & Valley
- Blue Ridge
- Piedmont
- Southeastern Plains
- Southern Coastal Plains

For more info on Georgia's ecoregions, visit:

<https://www.arcgis.com/home/item.html?id=e75c9b99bddb9381df5d9d55f99>

For more info on the WRDSWAP visit:

https://georgiawildlife.com/sites/default/files/wrd/pdf/sHighPriorityHabitats_ExcerptGaSWAP2015.pdf



Piedmont Region



Oak-Hickory Forests

- Excellent deer habitat
- 55-90 browse species

Pine-Hardwood Forests

- Great deer habitat
- Quality woody browse & forbs
- 65-115 browse species

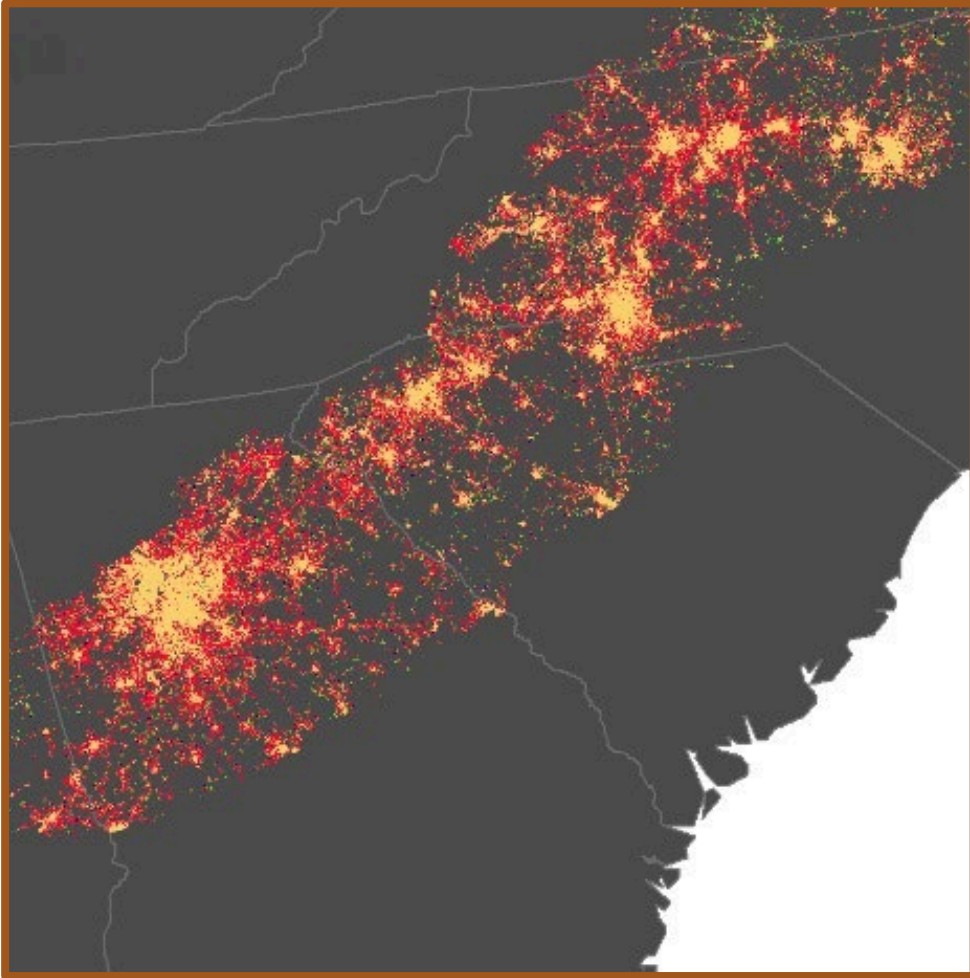
Riparian-Bottomland Forests

- Year-round water source
- Moist soil supports plant diversity
- 70-120 browse species
- Thermal cover
- Travel corridors

Human expansion



Southeast Megaregion



"Char-lanta"

- Charlotte, NC
- Atlanta, GA
- Greenville, SC

Major economic powerhouse

- Economic output over \$1 trillion

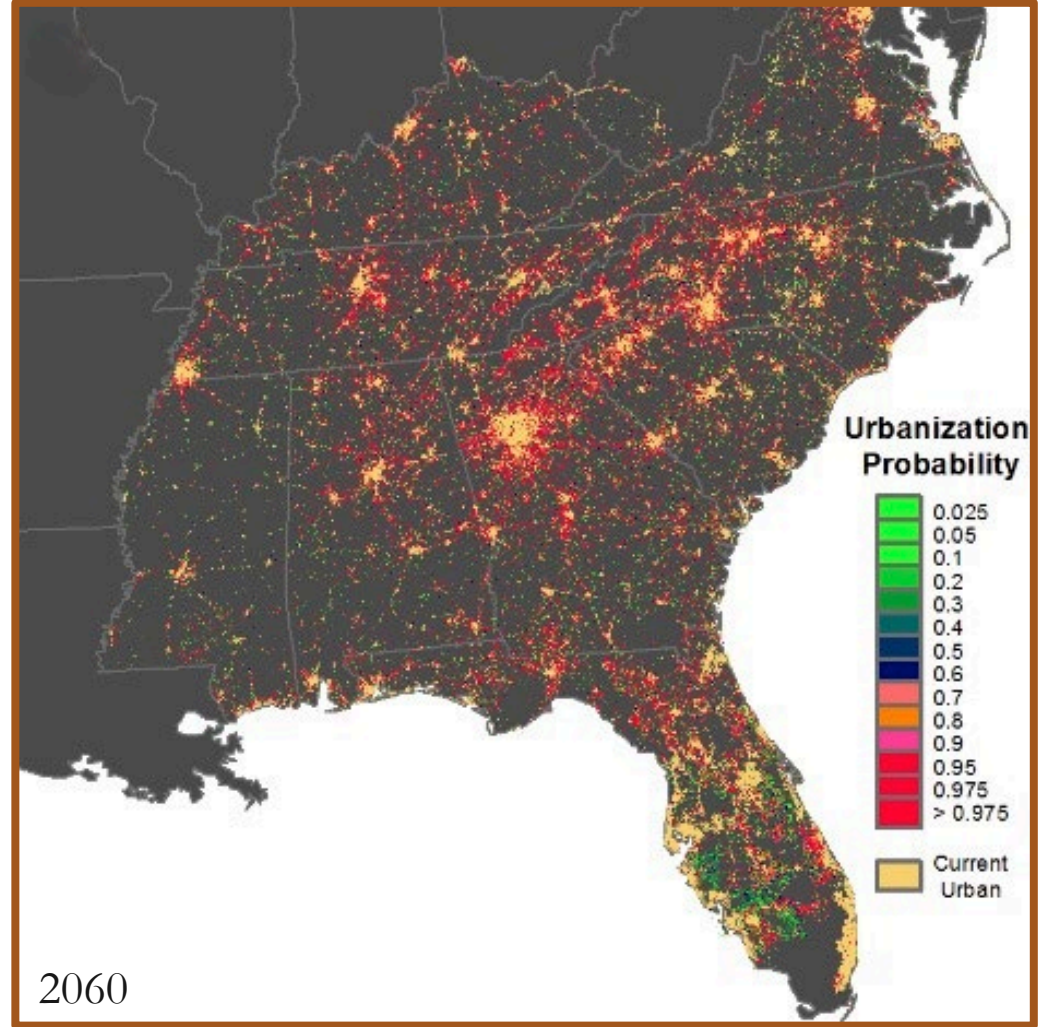
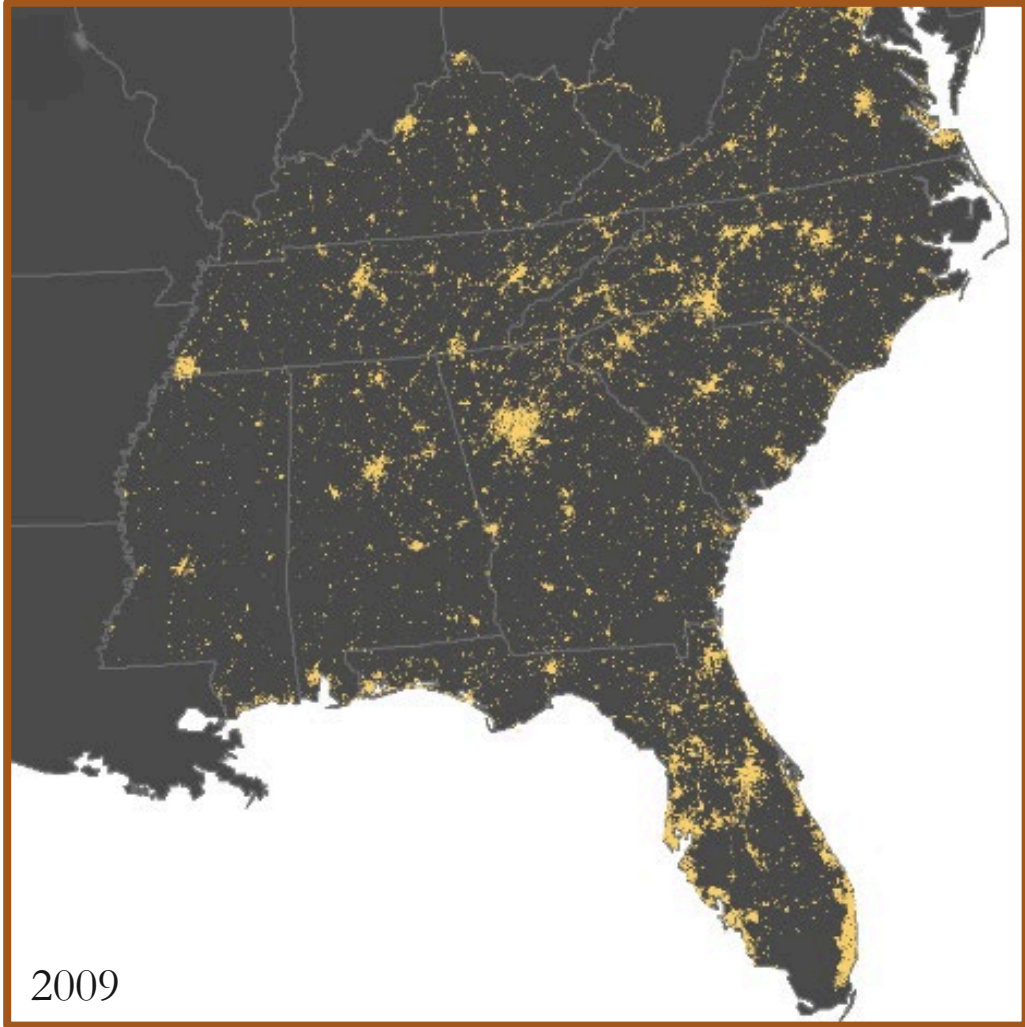
Significant expansion of urban areas

- 17,800km² (2009) - 47,500km² (2060)
- Growth rate ~165%

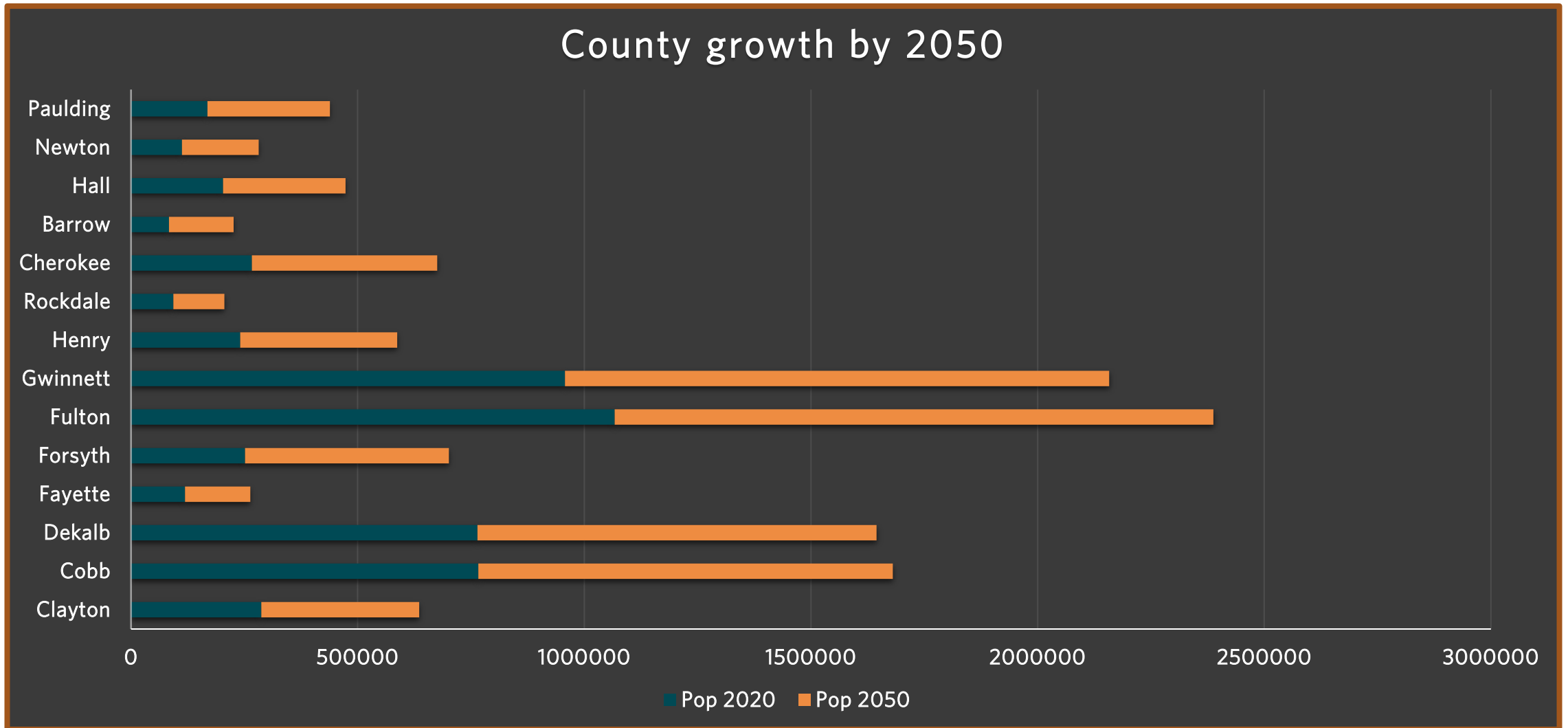
Environmental impacts

- Higher regional temperatures
- Increase in flood potential
- Impacts to wildlife

Southeast Megaregion



Local expansion



Human expansion



Habitat fragmentation

- Significantly alters dispersal and movement patterns
- Restricts populations to confined spaces
- Reduces gene-flow, lowering genetic diversity
- Facilitates a “localized overpopulation” problem
- Increase in edge-habitat

Local factors



Metro-Atlanta

“The City in the Trees”

- 46.5% COA forested canopy
- ~80k acres within I-285 perimeter
- ~250k acres of forested areas in Metro-Atlanta

Forested-suburban interface provides two things:

- 1) Highly diverse habitat and food resources
- 2) Abundance of **edge-habitat**



Edge Habitat



Edge Habitat



Edge Habitat



The Chattahoochee River



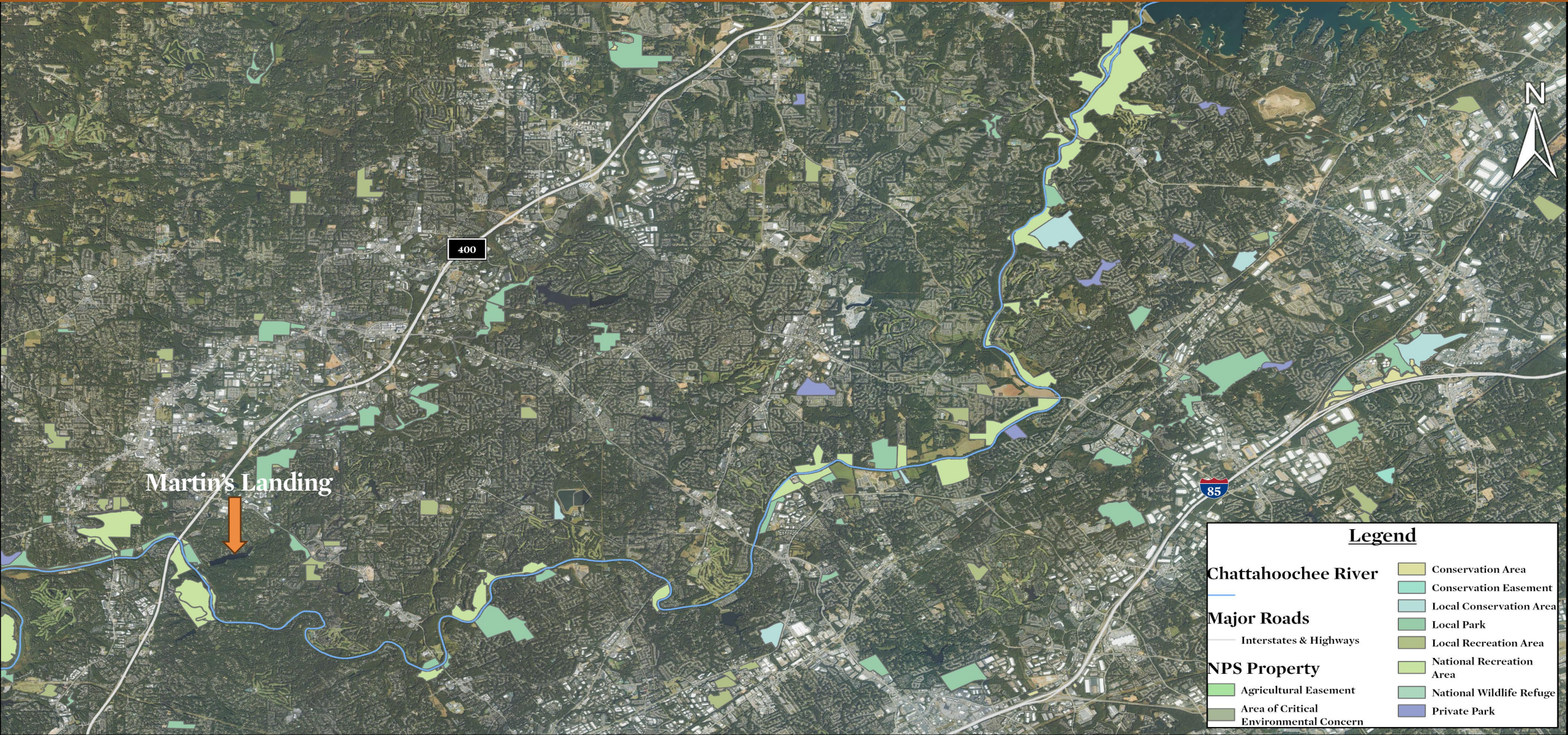
Largest river in GA

- 430 miles in length
- 11k acres of NPS protected areas between Lanier and ATL

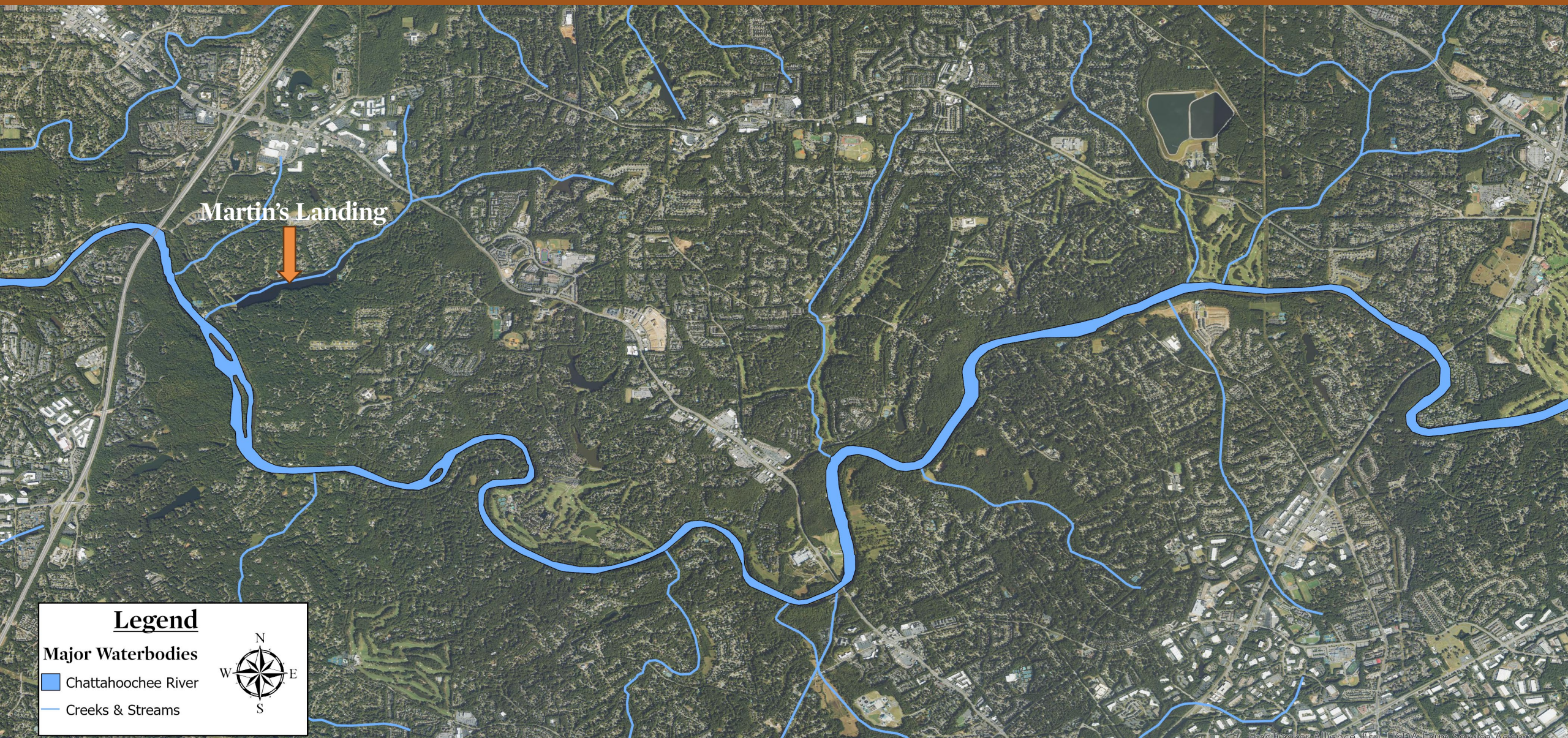
Plays significant role in urban deer management:

- 1) Provides ample sanctuary habitat
- 2) Significant travel corridors into Metro-Atlanta

Protected Areas



Travel corridors



Martin's Landing



Legend

Major Waterbodies

-  Chattahoochee River
-  Creeks & Streams



Takeaways:

1. Even without human influence, the Piedmont Region is great habitat for white-tailed deer
 - Forested areas and waterbodies (food, cover, water) ensure deer will be present on the landscape
2. Human expansion and follow-on effects will do two things:
 1. Lower availability of natural habitat
 2. Localize deer densities

Why manage?

Why not just let nature take its course?

Predator Declines



Fewer predators:

1600's-1700's – Eastern cougars, red wolves, black bears, coyotes, and bobcats

Today – Black bears, coyotes, and bobcats

Atlanta – Coyotes

- Opportunistic omnivore
- $\geq 90\%$ diet comprised of rodents

Hunting

Less hunting in urban spaces

- ~300k hunters in Metro-Atlanta area
- Most hunting occurs outside Metro-Atlanta

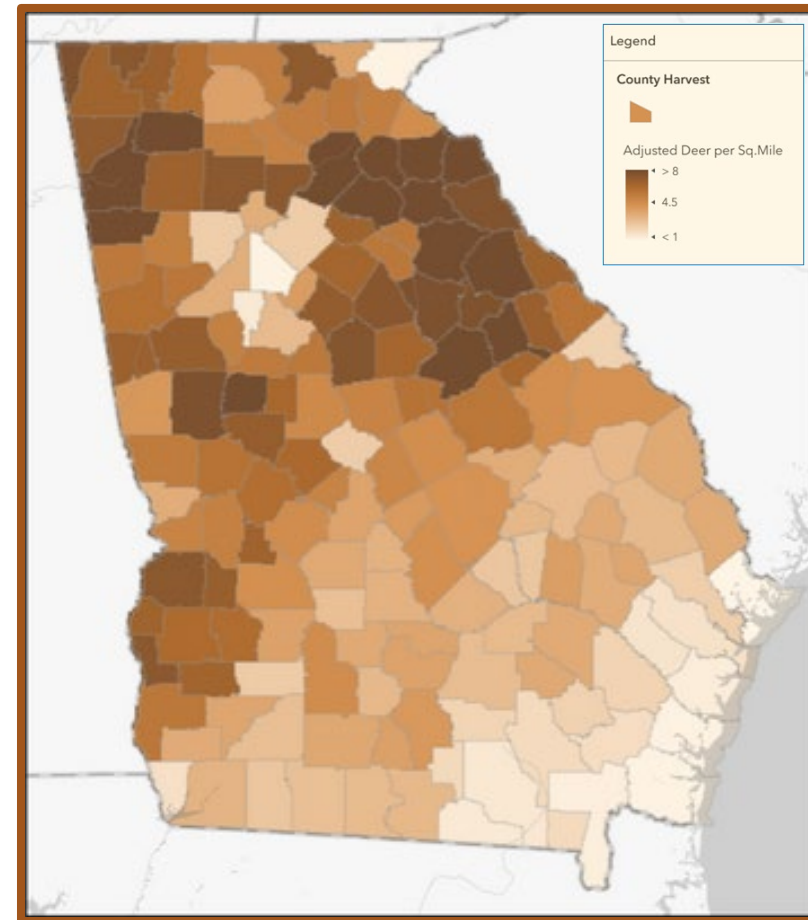
Reasons

- Habitat loss = less access
- Archery only
- Local laws/regulations

Impacts

- Very few predators/hunters
- Significant increases in local deer populations
- Increase in human-wildlife conflicts

Hunting = population control



Restoring Balance

The most rigorous scientific study of white-tailed deer population growth occurred on the George Reserve in 1928.

- 1,300-acre enclosed pen
- 2 bucks, 4 does added
- In 7 years, the population grew to 222

Repeated in 1974 with 10 deer

- Population grew to 212 in 6 years
- Estimated ~900 in 10 years if left un-checked

Takeaways:

1. For a prey species, reproduction means survival. This adaptation in an environment absent of predators leads to exponential population growth and significant long-term impacts on ecosystems and wildlife.
2. Hunting = population control. Vehicles and disease are not enough to control our urban deer populations.

Impacts



Ecosystem impacts

Prevents forest regeneration

- Reduction of native plants/trees
- Invasive species takeover
- Loss of habitat
- Biological desert

Collapse in wildlife diversity

- Songbirds
- Migratory birds and waterfowl
- Ground-nesting game
- Small mammals
- Amphibians and reptiles
- Insects and pollinators

Decline in soil & water quality

- Soil compaction
- Lowers soil quality
- Increase in erosion
- Increased sedimentation
- Loss of riparian buffer function
- Eutrophication

Decline in herd health

- Less food for current cohort
- Increased disease risk and higher transmission rates

Human Wildlife Conflict



Human-wildlife Conflict – any interaction between people and wildlife that results in a negative impact on people or wildlife.

Examples:

- Close encounters
- Property damage
- Wildlife-pet conflicts
- Disease risk
- Deer-vehicle collisions (DVC)

FY25 – 1,154 deer-conflicts reported,
140 site-responses conducted

Herd Health

Chronic Wasting Disease

- Contagious and always-fatal neurological disease
 - Cervids: elk, moose, mule deer, and white-tailed deer
- Caused by **prions** – abnormal misfolded proteins
 - These prions convert normal cellular proteins (PrP^C) into pathogenic forms (PrP^{Sc}).
- Long incubation period; can remain in environment long-term

Management Actions

- Routine testing
- CMA: Lanier, Berrien, and Lowndes Counties
- New requirements for game harvested out-of-state
- New requirements for carcass disposal

Epizootic Hemorrhagic Disease

- Seasonal, viral disease affecting cervids
- Orbivirus transmitted by a **biting midge** or “no-see-ums”
- Localized mortality events can be significant
- Key indicator: dead deer near/in water with no signs of trauma

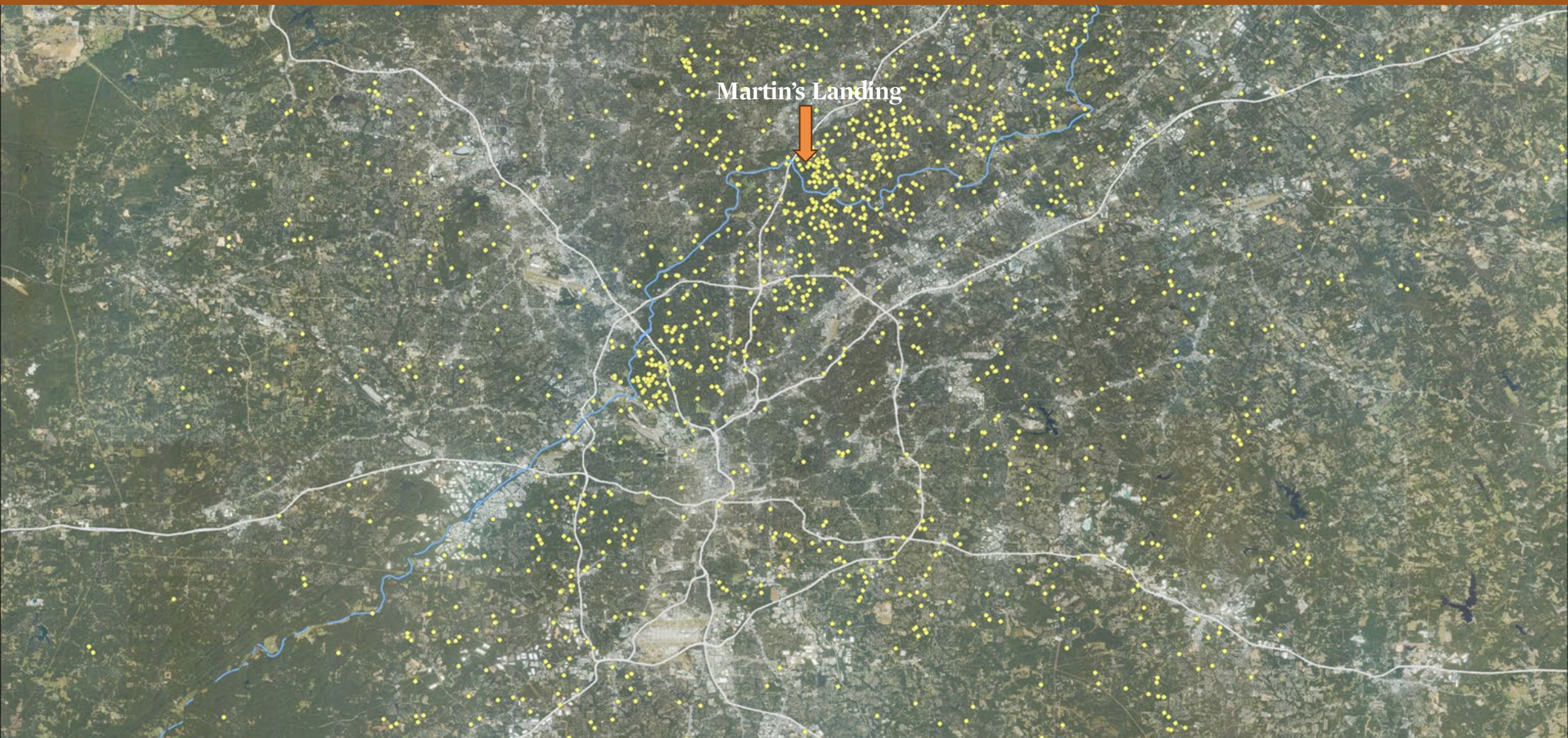
Management Actions

- Difficult to manage
- Partner w/public
- Track and monitor spread
- Make habitat less suitable for midges

All sampling locations can be found here:

<https://georgiawildlife.com/cwd>

Human-Wildlife Conflicts



Assessing impacts

How many deer is too many?

Carrying Capacity

Ecological Carrying Capacity – the number of deer that can exist in an area without degrading the ecosystem, biodiversity, or habitat quality.

Biological Carrying Capacity – the number of deer that the available natural resources can support

1) Browse surveys

- 1) Composition and diversity
- 2) Water sources
- 3) Seasonal fluctuation

2) Population modeling

- 1) Relative abundance
- 2) Fawn recruitment
- 3) Harvest/mortality records



Social Carrying Capacity

The maximum number of deer residents are willing to tolerate on the landscape.



Management Techniques (Non-lethal)

Prohibit supplemental feeding

- Local regulations
- Deer corn/high-scent signatures
- Effective at low deer densities

Repellants

- Only reduces damage
- Effective at low deer densities

Exclusionary Devices

- Chicken wire
- Fencing
- Scaring devices
- Hazing
- Effective at low deer densities

Relocation

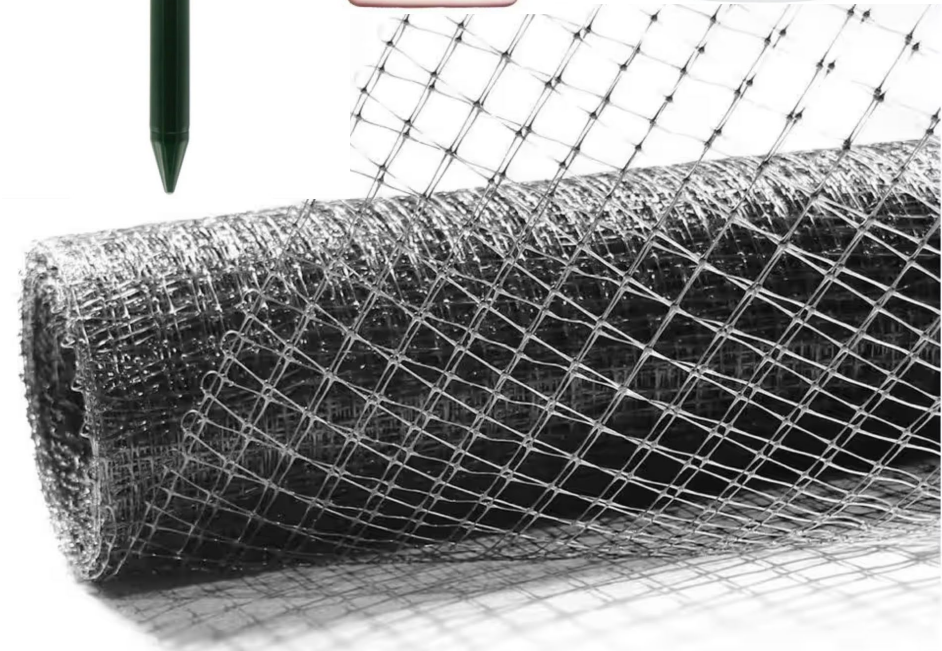
- **Illegal** in Georgia
- Only relocates the problem
- Capture myopathy 50-85%
- Costly: ~\$250 per
- Not supported by any professional wildlife agency

Fertility Control

- **Illegal** in Georgia
- Little long-term data
- Very costly ~\$1,300 per
- No immediate results

All techniques fail to address underlying issue

Examples:



Lethal Management Techniques

USDA, APHIS – Wildlife Services

- Targeted population reduction
- Trained federal sharpshooters
- Advanced equipment

Predator reintroduction:

- Not viable in urban areas for many reasons:
 - 1) Lack of habitat
 - 2) Habitat frag/mobility
 - 3) Predator-pet conflicts

Capture and euthanize

- **Illegal** in Georgia
- Costly
- Labor intensive

Regulated hunting

- Primary management tool
- Effective
- Cost effective

Controlled hunting

- Safe and effective technique
- Activities controlled/monitored by DNR staff
- Cost effective
- Highly successful management strategy
- **Examples:**
 - Bobby Brown, Ft. Yargo, F. D. Roosevelt, Mistletoe, Richard B. Russell, etc.

Controlled urban-archery hunting

(Clayton, Cobb, Dekalb, and Fulton)

- New approach gaining steam
- Safe, effective, urban deer management strategy

Controlled Archery Hunting

How it works:

YOU have the control

1) HOA/UWP collaborate to identify:

- Designated management areas (HOA/private)
- Selection process for local hunters
- Dates, times, and management goals

2) DNR ensures hunters are licensed and qualified

- Equipment inspections
- Archery qualification shoot

3) Deer management conducted with DNR staff on-site.

- UWP staff present during all deer management activities
- Collection of biological data, disease samples, etc.
- Local LE for additional security

4) Collaborate w/HFH or local groups

- Meat donation to HFH or Venison Project

Landowner & Lessee Liability

Identified as major concern for landowners in GA (78%) 1965 Georgia

Recreational Property Act¹

- Explicitly shields landowners/lessees from civil liability
 - **Exception:** willful or malicious intent to cause harm is proven

No successful Appellate court cases for liability claims against landowners in over 35 years.

- Recreation liability statutes for hunting among strongest in nation

Landowner agreements

- Can provide additional layer of protection



¹O.C.G.A. §§ 51-3-20

Controlled Archery Hunting

Pros

- Structured by you
- Safe & effective
- Cost effective
- No over-harvest concern
- Supports conservation
- Relief to local ecosystems
- Contribution to public safety
- Contribution to those in need



NFCC
North Fulton
Community Charities

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Cons

- Planning & implementation
- Can be a divisive topic



Future of Management

- More research needed in fertility control for use in free-ranging deer
- Until other management options are available, a focus on **community-led deer management** is needed
- Collaboration with local leadership to incentivize urban deer management at the landowner level

Questions?

