



Urban Deer Management Program

Urban Deer Management Plan

- Special Thank you to the Missouri Department of Conservation staff for assistance in the research and compilation of options for a Management Program.
- Data contained within this presentation is a culmination of City research, data provided by Erin Shank, MDC and members of the MDC Cape Girardeau staff.

Overview

- Background
 - Biology
 - History
- Data
 - Density
 - Effect of Over Population
- Methods/Options
- Staff Recommendation

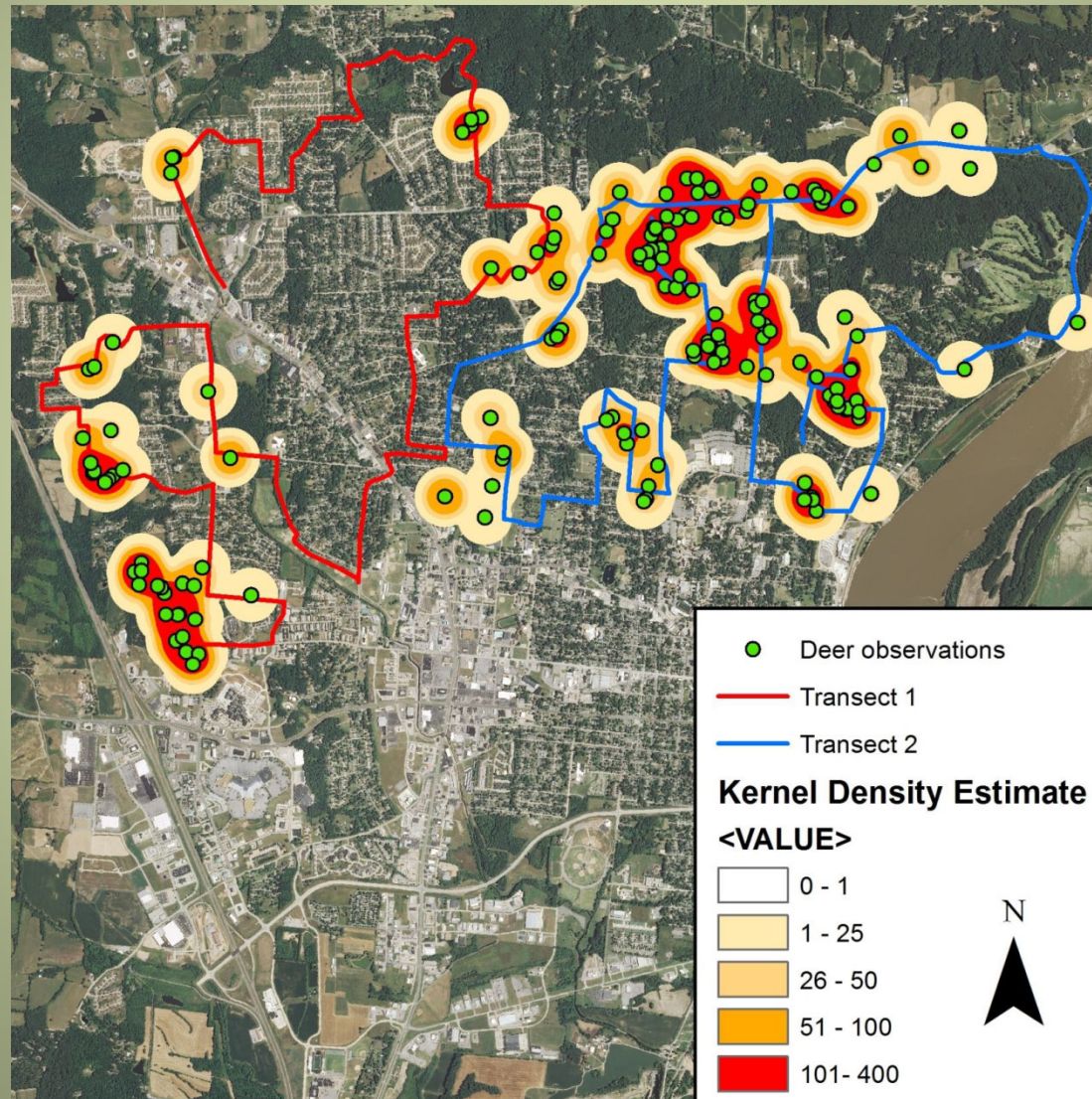
Biological Background

- Fawns born late spring (late May–June)
- Fawns remain near doe through the next year
- Home ranges are about $\frac{1}{2}$ to $1 \frac{1}{2}$ square miles with smaller ranges in suburban landscapes
- The rut/mating season peaks in mid-November.

Historical Background

- In 2013, City of Cape in partnership with SEMO, conducted deer density survey to gain better understanding of urban deer issue
- Survey utilized two routes to calculate estimated density
- Density survey found an overall estimated density of **37 deer/square mile**.
 - Some pockets within the City are over 100 deer/square mile density!

2013 Deer Density Survey



Urban Deer Densities

- Ecological carrying capacity = ~ 20 deer/ sq. mi.
 - Goal population for urban areas
- Social carrying capacity = ~ 40 deer/ sq. mi.
- Biological carrying capacity = ???

Effects of Over Population

- Landscape damage
 - Grazing and Antler Rub



Effects of Over Population

- Deer-Vehicle Collisions
 - City of Cape Girardeau
 - 2017 – 32
 - 2018 – 31
 - 2019 – 38
 - 2020 – 21 (YTD)



Other Effects

- Concern over tick-borne disease
- Potential of disease spread
- Bold and aggressive behavior
- Over browse leading to decline in habitat
 - Decline in habitat leading to poor quality of life for both deer and other animals

Mitigation Methods/Options

- Non-Lethal Solutions
 - Damage control and deterrents
- Lethal Solutions
 - Population control
- Methods not allowed

Non-Lethal Solutions

- Focus on deterring deer from populating an area by:
 - eliminating food sources
 - causing minor discomfort
 - triggering fear responses

Non-Lethal Solutions

- Fencing
 - 6-8 feet tall
- Repellants
- Scare tactics
- Deer “resistant” plants
- Road warning devices
- Prohibit supplemental feeding
 - City of Cape Girardeau Code of Ordinances Section 6-10

Lethal Solutions

- Lethal solutions focus on long term population management of the herd
 - To be most effective, does harvested to reduce the amount of off-spring in future years
- Archery Hunt
- Managed Hunt
- Sharpshooting
- Trap & euthanasia

Archery Hunt

- Hunting occurs under statewide regulations with additional municipal restrictions
- City would authorize/establish appropriate regulation for private property owners to hunt (or allow hunters on their property) with state issued tag (Typically for properties over 2 acres)
- Archery season runs from Sept. 15 – Jan. 15
- Lowest cost option and optimal for maintaining a lower population

Managed Hunt

- Hunting occurs under statewide managed hunt system on public properties designated by the City
- Hunters selected at random through lottery system to hunt specific dates and sites
- Rules, regulations and requirements are specific to each hunt. Rules set by City and approved by State
- Approval for hunt sites and dates submitted to State by February for approval
- City tasked with monitoring and checking hunters for compliance. Minimal costs associated with staff time

Sharpshooters

- Trained marksmen shoot deer over bait
- High efficiency method to quickly reduce population
- City required to obtain special permit from MDC to pursue this method
- Deer meat must be donated through MDC program, at City's expense
- Fairly high cost with estimates reaching \$350/deer
- Requires ongoing maintenance program to keep the population reduced at levels deemed appropriate

Trap and Euthanasia

- Deer individually trapped and euthanized with non-projectile device
- City required to obtain a special permit from MDC to pursue this method
- Deer meat must be donated through MDC program, at City's expense
- No municipal ordinance change required

Trap and euthanasia (cont'd)

- This method is both expensive and inefficient
- Trap and relocation of deer is illegal and not an option for the City

Methods Not Allowed

- Sterilization
 - Sterilization of Female deer was method tested in the past and found ineffective at reducing the herd population and extremely high cost
 - MDC stated approval would NOT be given for a plan involving this method

Methods Not Allowed

- Trap and Relocate
 - 70% of relocated deer do not survive to the next breeding season
 - 30-35% perish within 1 month of relocation due to stress of trap and transfer
 - The remaining fall victim to predation, vehicle strikes, and other issues due to struggles acclimating to the new landscape and environment

Trap and Relocate (cont'd)

- Risk of moving disease from one sub-population to another extremely high with trap and relocate
- Per the MDC, relocation of live animals (and carcasses) is likely cause of spread of CWD throughout North America
- Missouri has established regulation against the trap and relocation of free-ranging deer

Considerations For Successful Management Program

- Public Safety
- Use of taxpayer funds
- Spirit of Fair Chase
- Types of methods available
- Objective – What level of urban deer do we wish to maintain?

Staff Recommendation

- Maintain herd of approx. 20 deer/ sq. mi.
 - Target for ecological carrying capacity
 - Maximum 80 deer harvest under 2021 managed hunt
- Implement Managed Archery Deer Hunt
 - Safest, lethal method available (no fire arms)
 - Minimal cost to the city beyond staff time to manage
- Will allow thinning urban deer herd slowly to avoid over harvest
- Reevaluate after first year harvest and ascertain whether to add/remove properties to control the population in a responsible manner

Staff Recommendation (Cont'd)

- Four designated areas within City:
 - Twin Trees, Delaware Park, Fountain Park and Cape Rock
 - Parks and Trails in hunting zones will be closed during the period of 11/1/2021-12/5/2021
 - Hunt will consist of 5 designated hunting periods
 - Period 1: November 1 – November 7
 - Period 2: November 8 – November 14
 - Period 3: November 15 – November 21
 - Period 4: November 22 – November 28
 - Period 5: November 29 – December 5

Managed Hunt: General Rules

- Mandatory Orientation Meeting to be held October 16, 2021 for all interested hunters:
 - Will cover the rules and regulations related to the hunts and review of designated properties
 - Will use a pill-draw for hunting location/property
 - Assigns a designated property to each hunter during each hunting period

Managed Hunt: General Rules

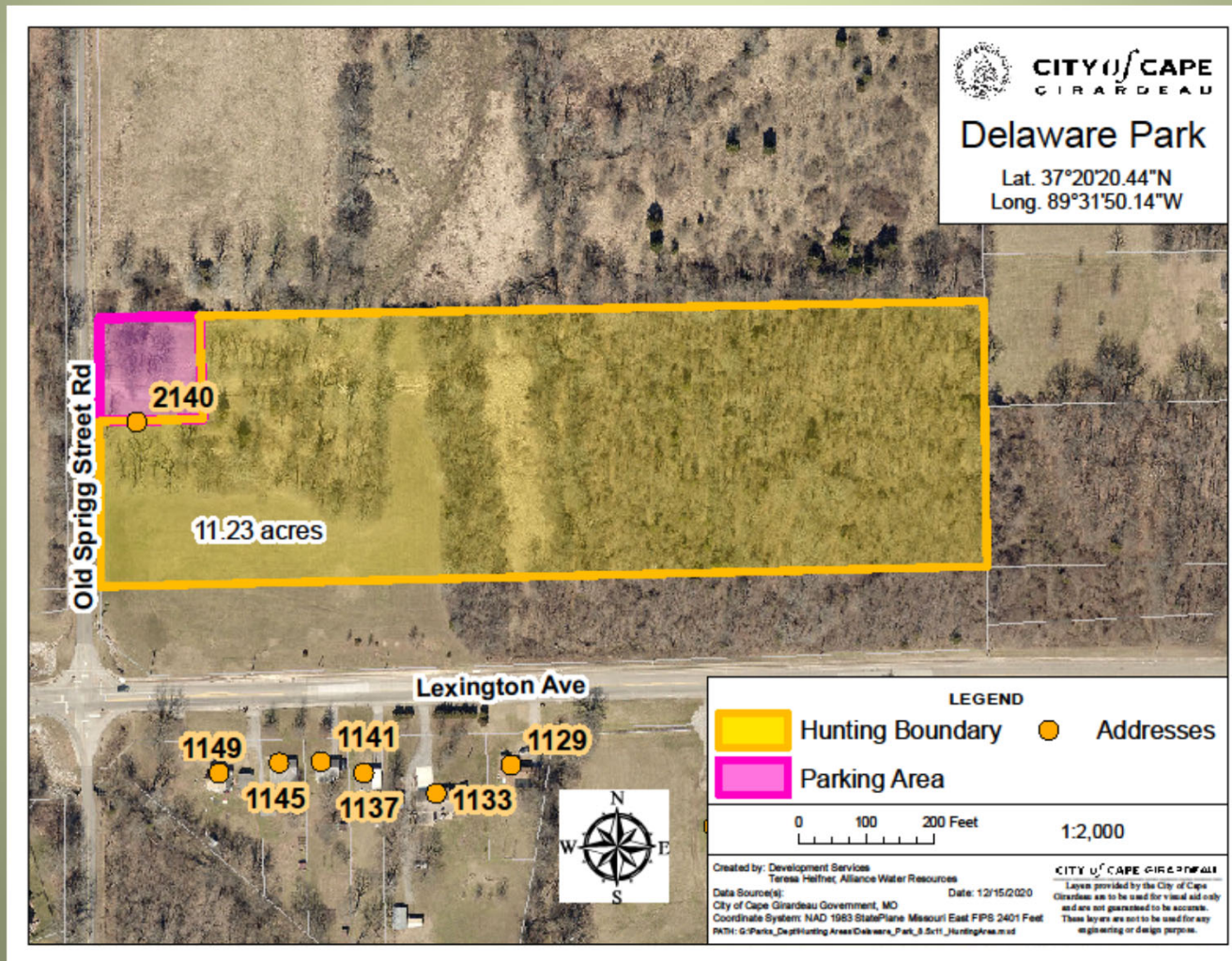
Urban Deer Management Plan

Managed Deer Hunt General Rules:

1. Archery methods only will be allowed. (Longbow, compound bow, recurve bow, or crossbow)
2. Hunting only allowed in designated areas and designated dates with proper permits issued by the State of Missouri.
3. Hunters are required to use designated parking areas and display provided parking tag on dash of their vehicle.
4. Hunters must wear hunter orange during the Managed Hunt which includes a hat and shirt, vest, or coat. The hunter-orange color must be visible from all sides. Camouflage orange does not satisfy this rule.
5. All arrows taken to the field must have, written in permanent marker on the shaft, the Missouri Conservation ID Number of the hunter.
6. Elevated stands must be used by all hunters. No ground hunting allowed.
7. Elevated stands must be a minimum of 10 feet off the ground.
8. Elevated stands must be marked with a tag that lists the hunters Missouri Conservation ID Number.
9. Elevated stands are allowed to be placed on the first eligible day of hunting and must be removed from the property at the completion of the final eligible hunting day.
10. Hunter permits will be valid for seven (7) days that will be designated during the permitting process.
11. Permit will allow for the harvest of two (2) deer, an antlerless and either sex. Hunters must harvest an antlerless deer first and then may harvest a second deer of either sex.

Managed Hunt: Delaware Park

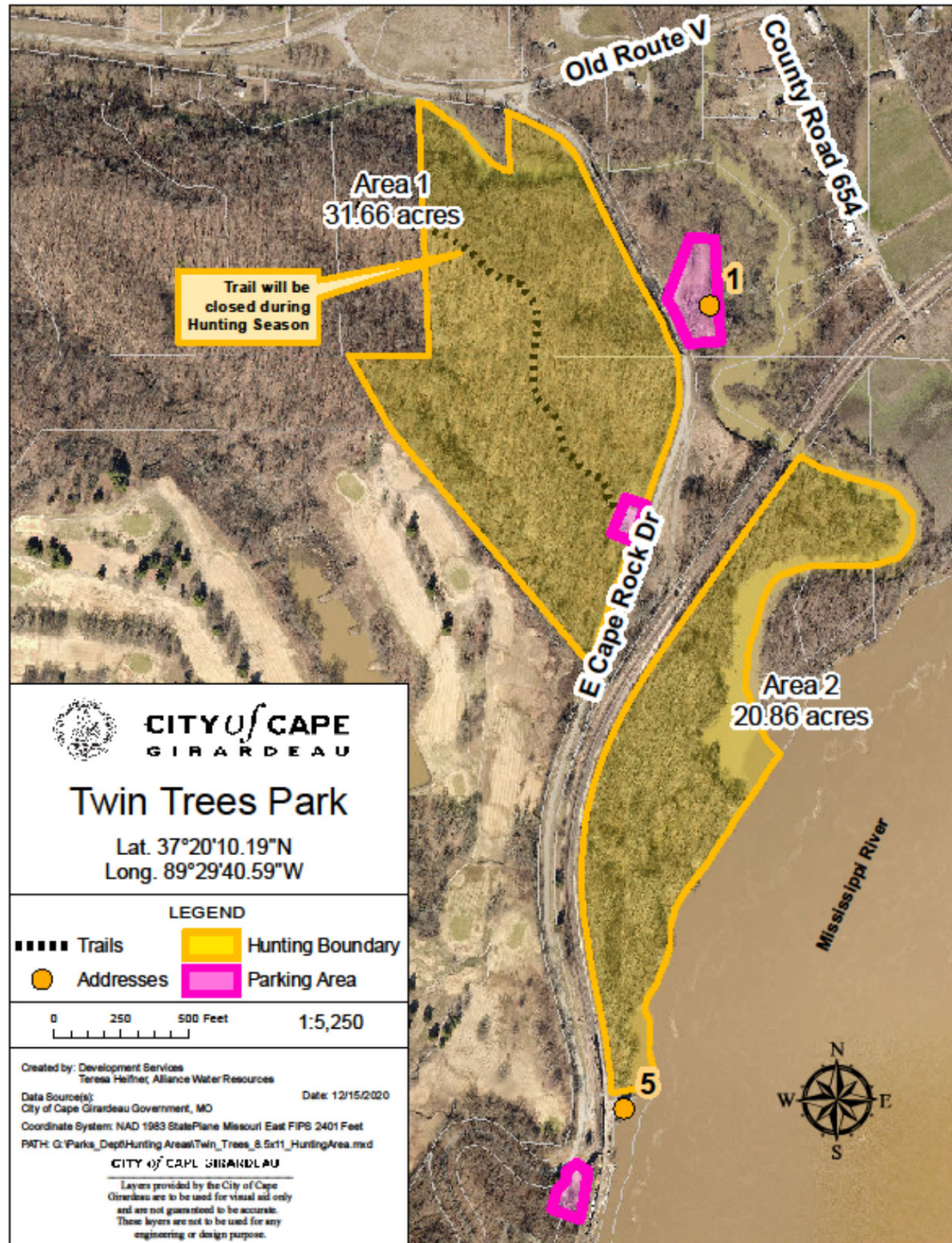
- One (1) hunter per hunting period



Managed Hunt: **Twin Trees**

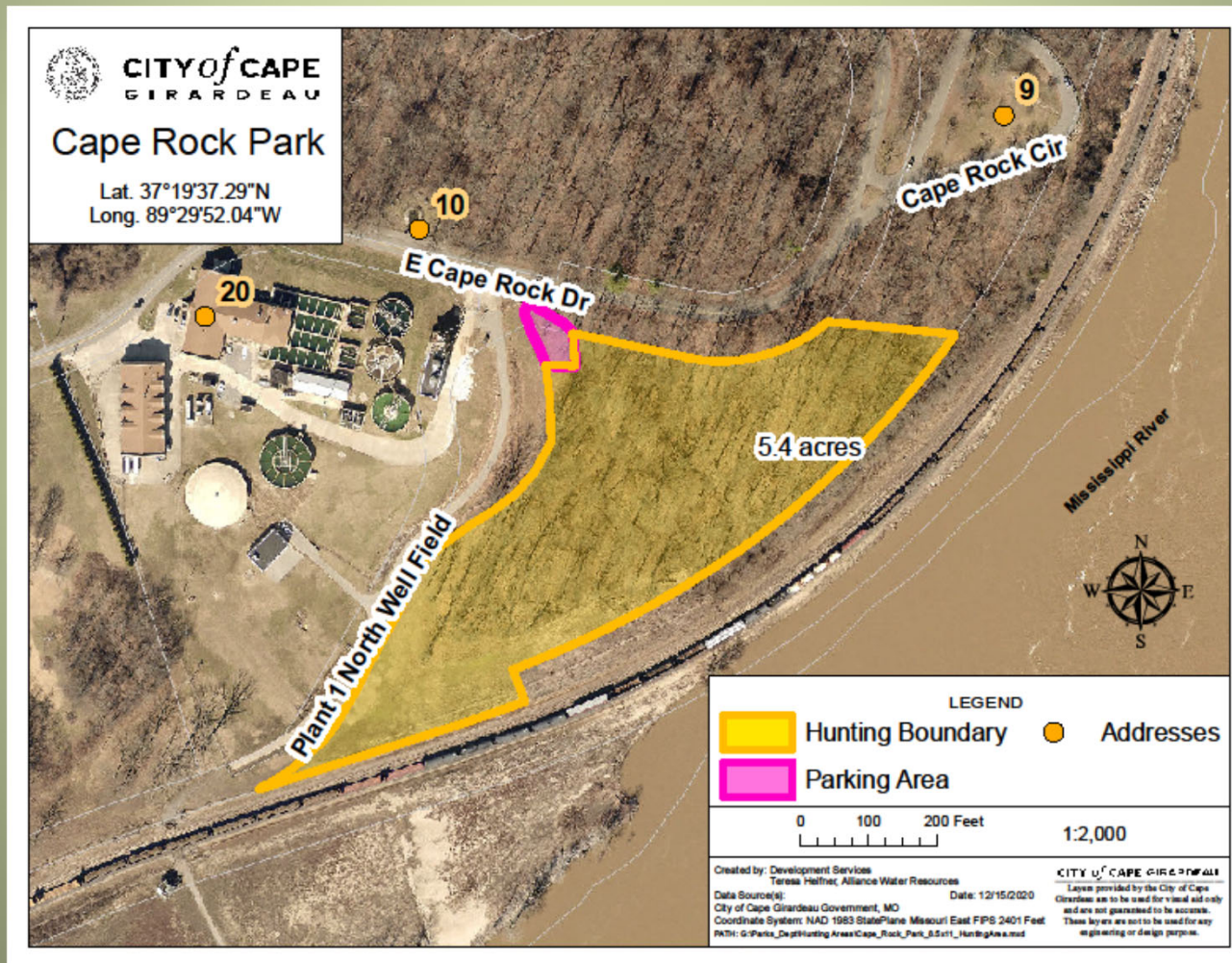
- Three (3) hunters per hunting period in Area 1
- Two (2) hunters per hunting period in Area 2

Managed Hunt: Twin Trees



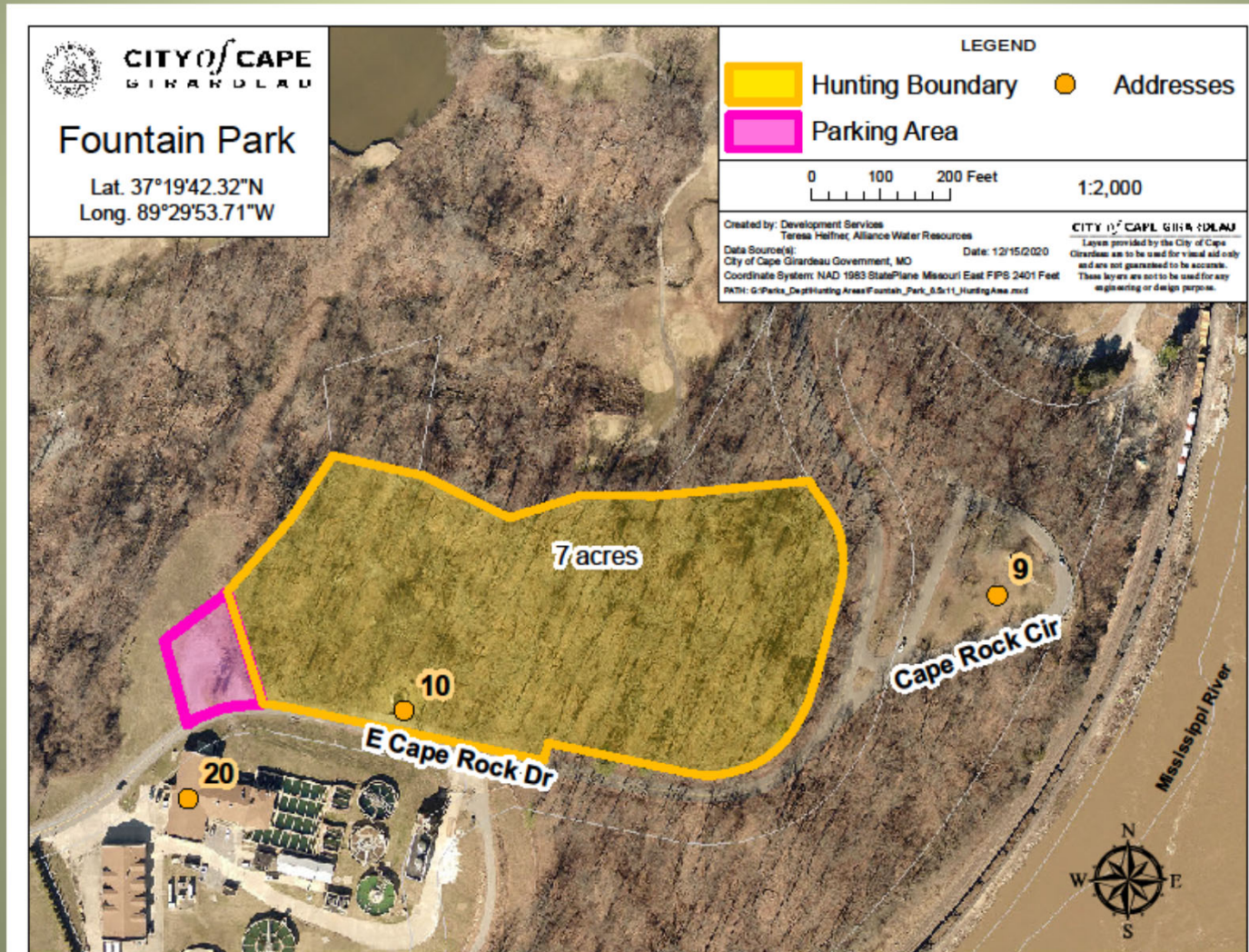
Managed Hunt: Cape Rock

- One (1) hunter per hunting period



Managed Hunt: Fountain Park

- One (1) hunter per hunting period



CITY *of* CAPE
G I R A R D E A U

Questions?