



FAIRFAX COUNTY PARK AUTHORITY



M E M O R A N D U M

TO: Chairman and Members
Park Authority Board

VIA: Jai Cole, Executive Director

FROM: Torsha Bhattacharya, Division Director, Stewardship & Planning

DATE: January 16, 2025

Agenda

**Resource Management Committee
(Committee of the Whole)
Wednesday, January 22, 2025 – 6:15 pm
Boardroom, Herrity Building
Chairman: Maggie Godbold
Vice Chair: Abena Aidoo Hewton**

1. Deer Management Program Transitioning from IR Camera Deer Density to IR Drone Deer Density Surveys – Countywide (with presentation) – Information. Item carried over from January, 8, 2025, committee meeting that was canceled due to inclement weather.

*Enclosures



If accommodations and/or alternative formats are needed, please call (703) 324-8563. TTY (703) 803-3354

Board Agenda Item
January 22, 2025

INFORMATION

DEER MANAGEMENT PROGRAM TRANSITIONING FROM IR CAMERA DEER DENSITY TO IR DRONE DEER DENSITY SURVEYS

The Natural Resources Branch and the Wildlife Office are transitioning to IR Drone deer density surveys to provide empirical data to support Natural Resource Management decisions across FCPA property. Drone surveys represent the most efficient method of deer density surveying to replace IR camera surveys.

STAFF:

Jai Cole, Executive Director

Sara Baldwin, Deputy Director/COO

Aimee Vosper, Deputy Director/CBD

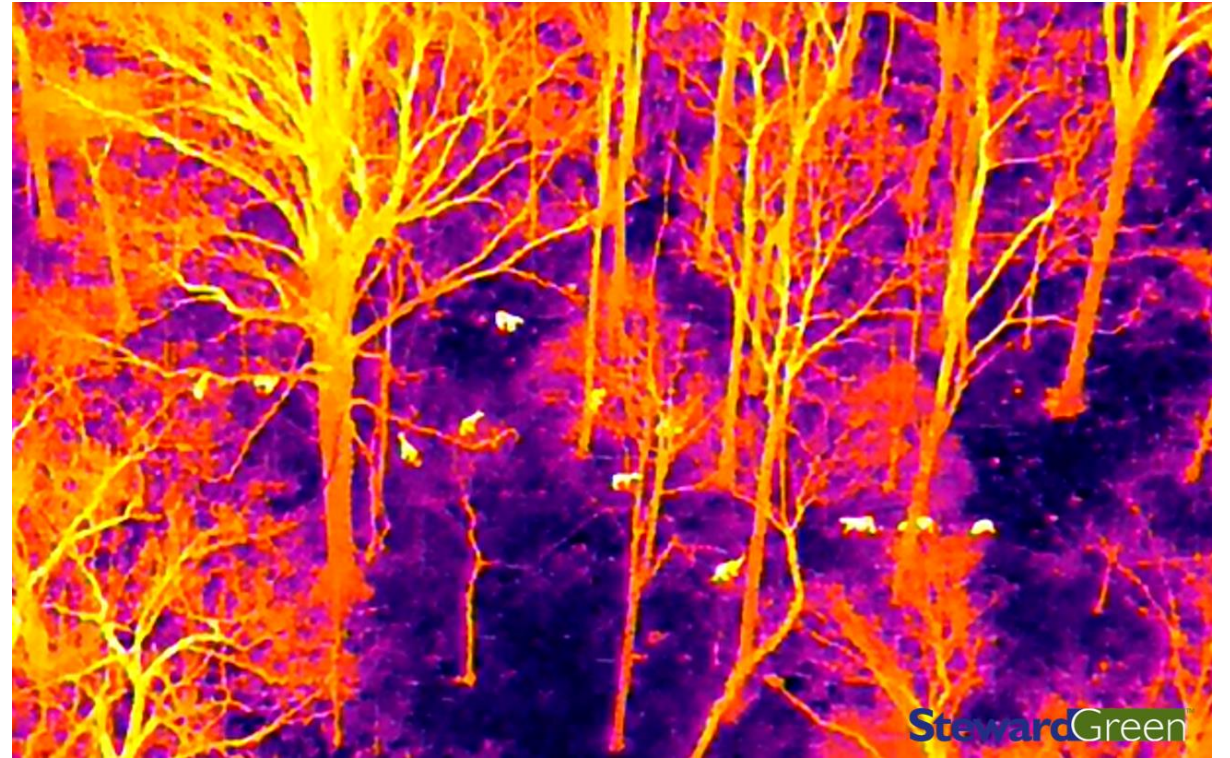
Torsha Bhattacharya, Director, Planning and Stewardship Division

John Burke, Manager, Natural Resources Branch

Deer Density Surveys

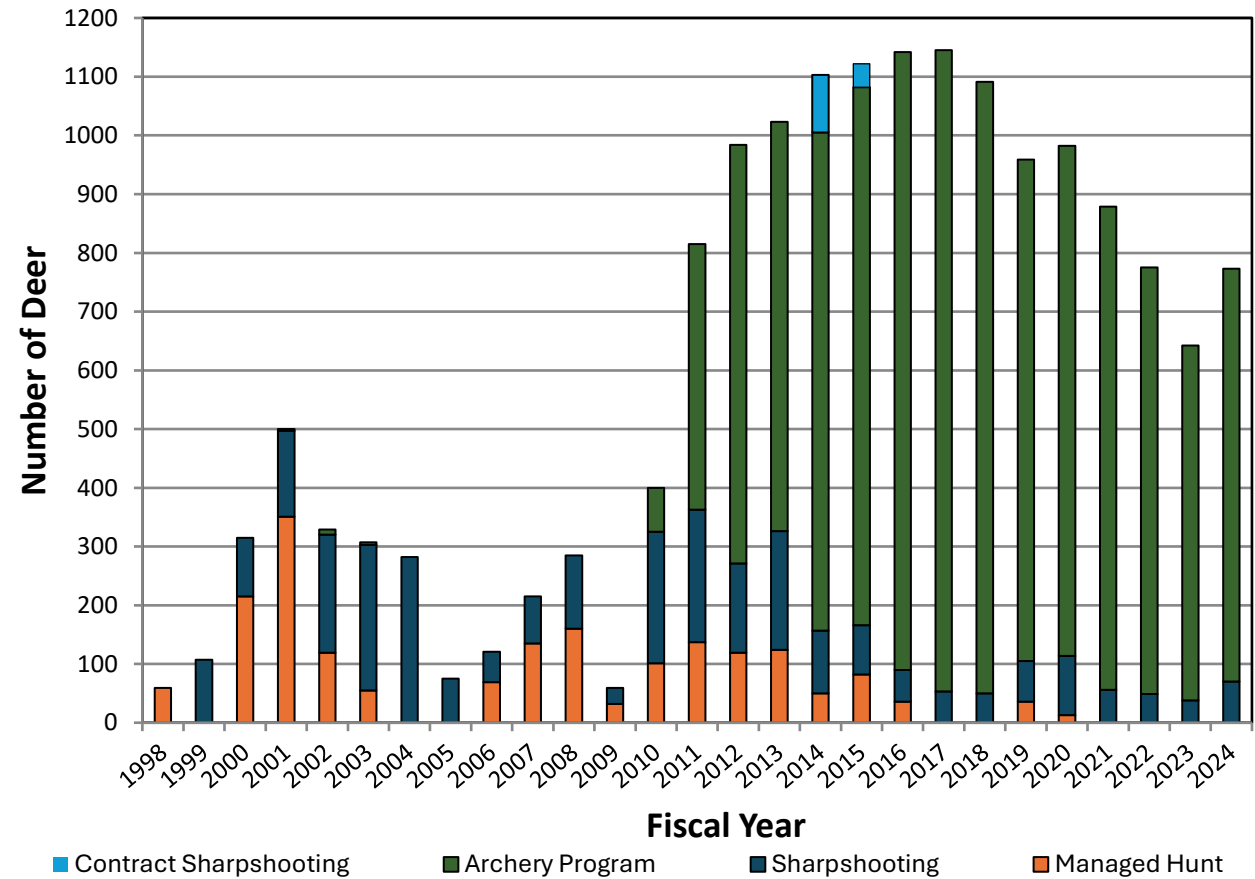
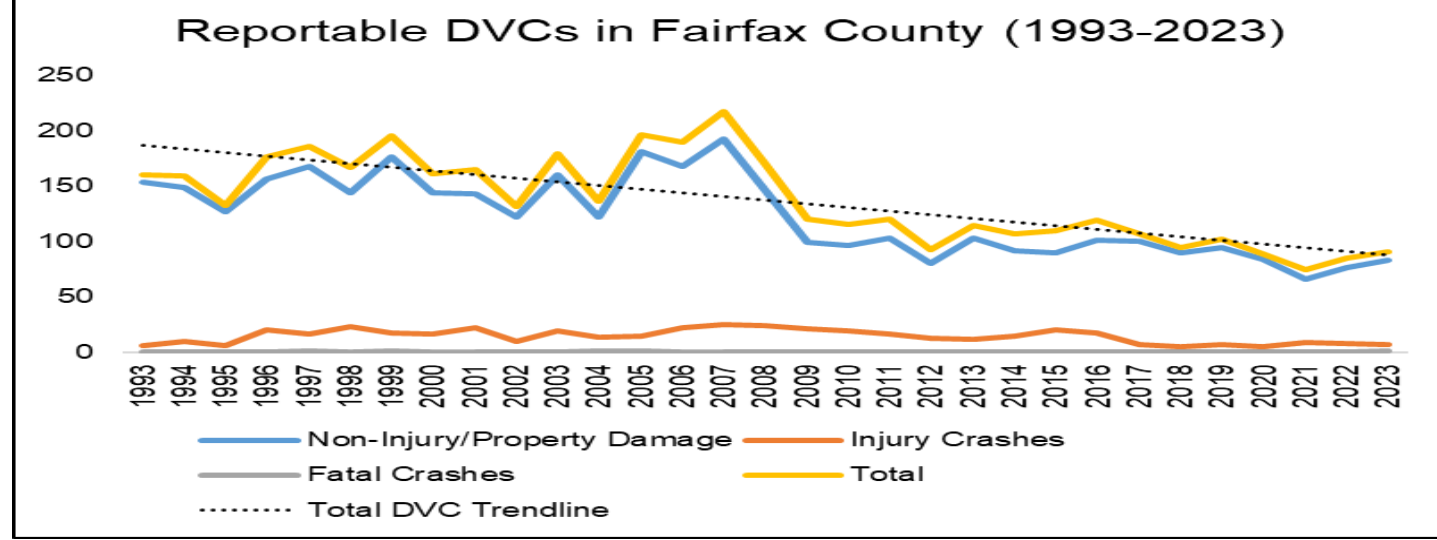
Transitioning from
Infra-Red Camera Surveys to
Infra-Red Drone Surveys

David Lawlor
Ecologist, Natural Resource Branch



Deer Management Program Overview

- BOS Approved Fairfax County Integrated Deer Management Plan in 1998 to:
 - Protect Human Health and Safety
 - Reduce Environmental Damage
 - Conserve Biodiversity
 - Maintain Healthy Deer Herds
- Established Deer Management Program for over 25 years.
- Fairfax is regionally recognized as a leader in suburban deer management
 - Advises many local jurisdictions on establishing programs
- Most natural predators have been extirpated
- Deer can double population each year in ideal conditions
- Deer-Vehicle collision and Deer Harvest charts



Why We Conduct Deer Density Surveys

- Provide empirical data to support the Deer Management Program
- Results are used to Direct Management Decisions on Natural Resources including:
 - Deer Management
 - Restoration Projects
 - Browse Impact surveys
- Protect High Quality Forests, Biodiversity and Rare Resources
- Provides Deer Density trend data
- Data provides evidence to validate the program
- No Deer Density Surveys have been conducted since 2022 due to CWD



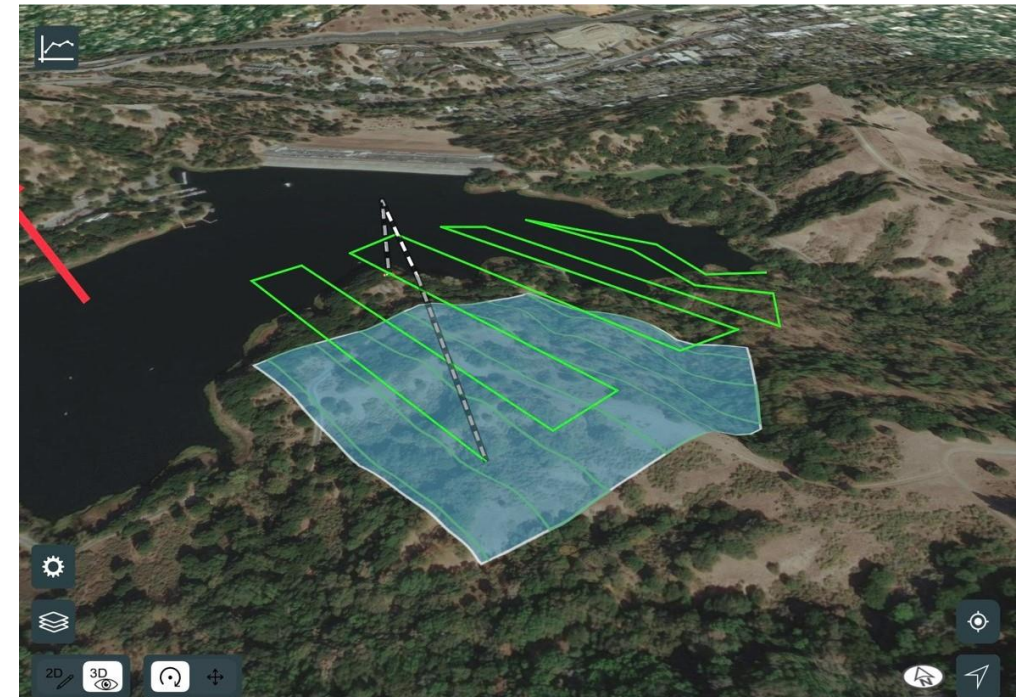
Why Transition to Drone Surveys?

- Fairfax County has used Infra-Red (IR) cameras for over 20 years to estimate deer densities
 - Bait is used to lure deer to camera
 - Labor intensive
- Chronic Wasting Disease was confirmed in one deer from Fairfax County in 2022, harvested on private property
 - Fairfax County is now part of a Disease Management Area (DMA 2) with new restrictions
 - As a result the county is no longer allowed to bait deer for IR camera surveys.
- The Deer Management Program needs a new method to estimate deer densities
- Drone surveys provide the most efficient and accurate method for estimating deer densities across large acreages by using the latest technology available
- The 2024 EQAC Report suggests continuing Deer Density Surveys and assessing drone surveys as an option



Logistics of Drone Surveys

- All drones are operated by FAA licensed pilots (FAA Part 107 Drone Operation Licenses)
- Will communicate with the FAA before each survey to obtain permits and approvals
- Flight plans will be cleared with the FAA to ensure there are no Temporary Flight Restrictions (TFR).
- Drones will follow a predetermined flight plan to cover each park as seen in the picture
- Contractor will advise FCPD and Public Safety Dispatch when surveys will be flown.
- Surveys will be announced in advance through FCPA MARCOM Division



Parks being Surveyed

- We are surveying 24 parks and 9,250 acres
 - Parks were selected based on size, location and proximity to each other for logistics
- Contractor will program flight path for each park using GIS software on drones
- Surveys will primarily be conducted at night to enhance IR signatures
 - Colder the trees and ground are the brighter warm-blooded mammals appear
- Scheduled for first week of March
- All 9,250 acres will be surveyed over the course of two nights

PARK_NAME	Acreage
Burke Lake	597
Colvin Run Mill	69
Colvin Run Stream Valley	44
Confederate Fortifications Historic Site	220
Cub Run Rec Center	37
Cub Run Stream Valley	900
Difficult Run Stream Valley	150
Elklick Preserve	1,413
Ellanor C. Lawrence	662
Frying Pan Farm	136
Halifax Point District	282
Hickory Forest	98
Huntley Meadows	1,559
Johnny Moore Stream Valley	355
Lake Fairfax	482
Mountain Road District	201
Patriot	130
Poplar Ford	468
Riverbend	407
Rock Hill District	169
Rocky Run Stream Valley	320
South Run District	192
South Run SV	362
Wolftrap Stream Valley	59
Total Acreage (24 parks)	9,250

Drone Details

- Drones used are small
- Range in size from 32"x32" to 18"x18"
 - Will follow specific flight path over park land
 - Will not hover over houses
 - Flies approximately 200' from the ground during surveys
- Contractor has over 10 year's experience using IR Drones for deer density surveys
 - Over 20 years providing science-based deer management recommendations and surveys
 - Completed IR Drone deer density surveys for Arlington County 2021



Questions?

