



Alternative Land Covers May Not Influence Bird Communities But How About Extreme Observations?

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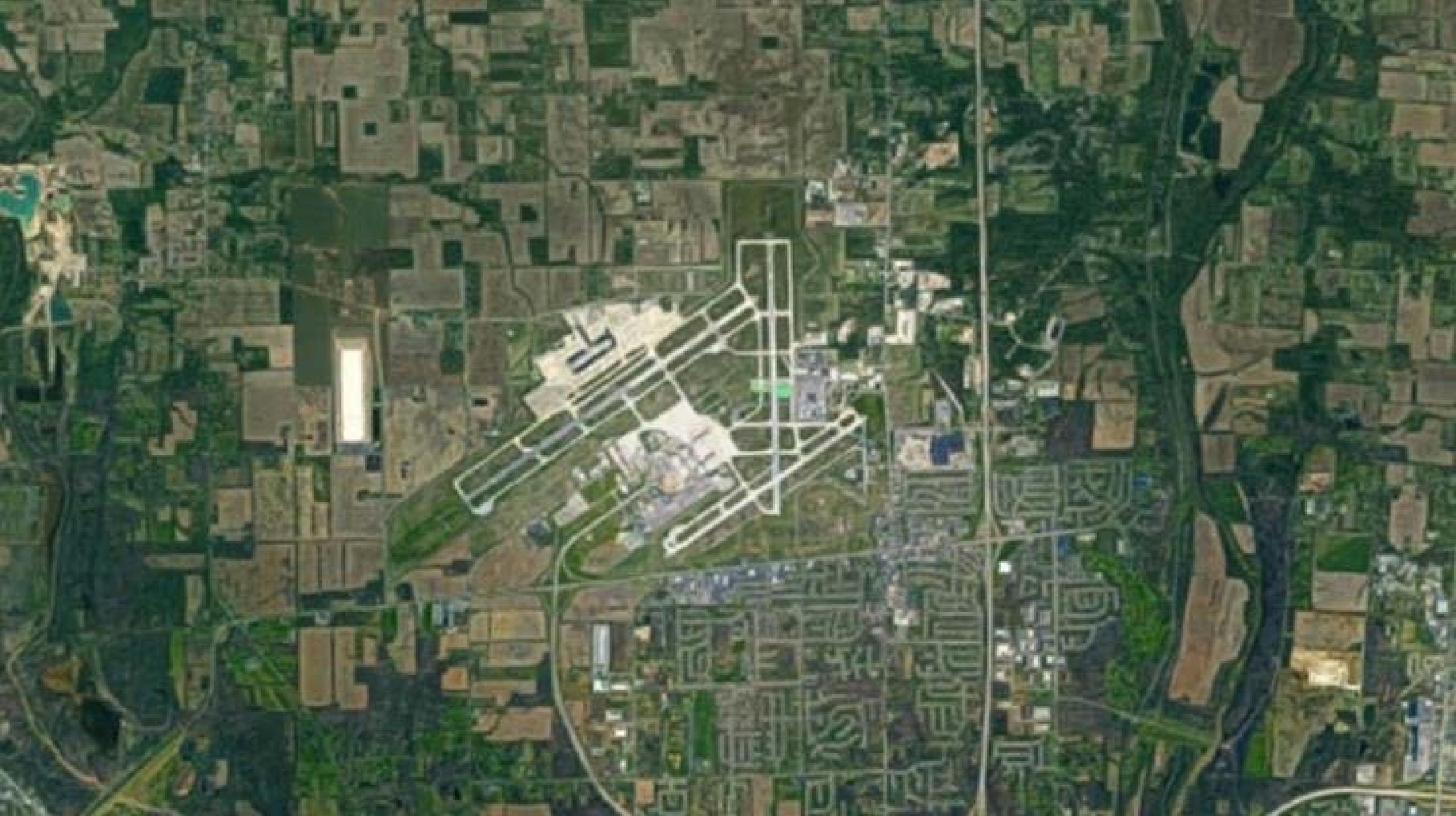
³*College of Environmental Science and Forestry, State University New York*

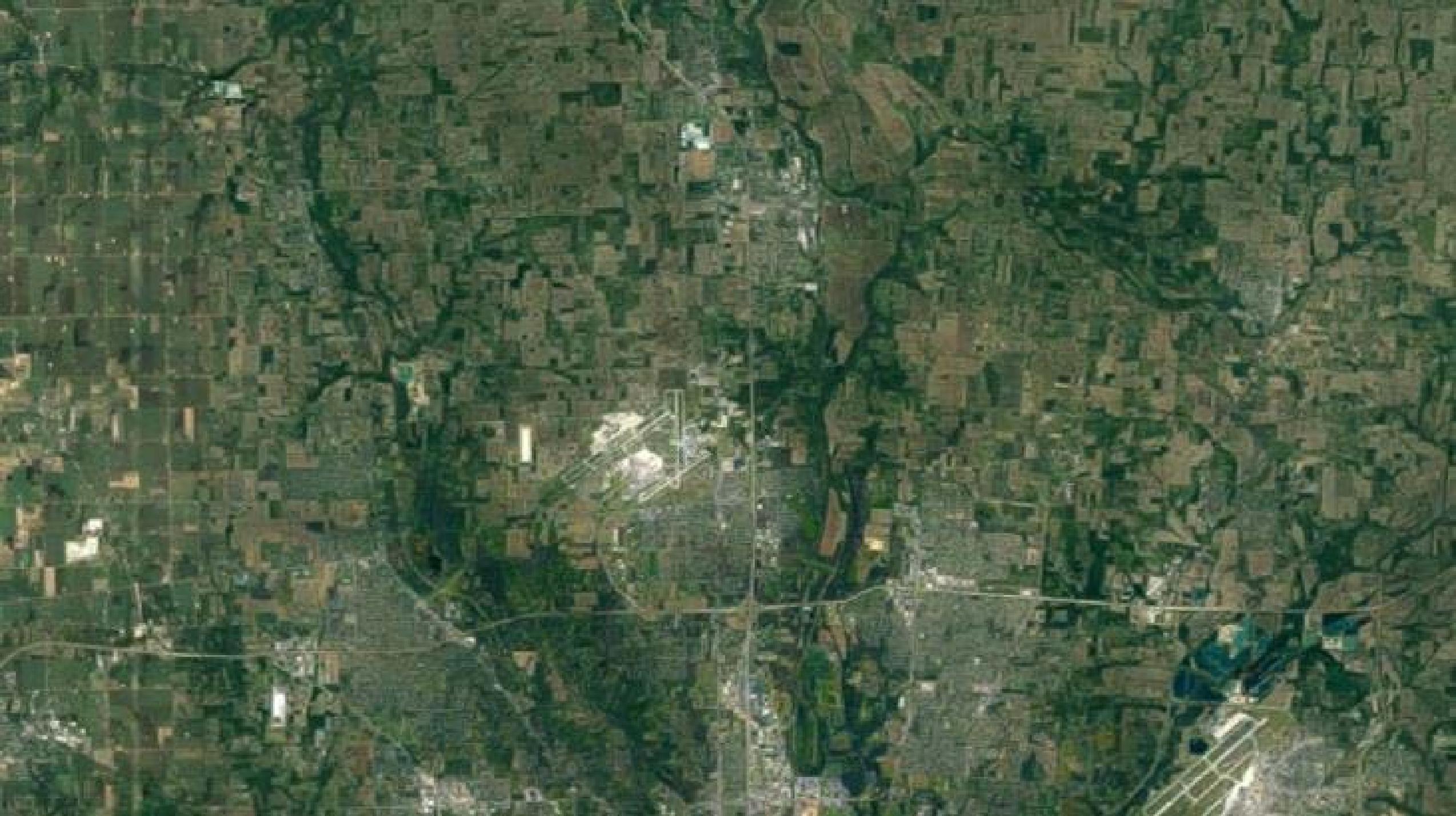
⁴*U.S.D.A. Wildlife Services Airport Hazards Program*

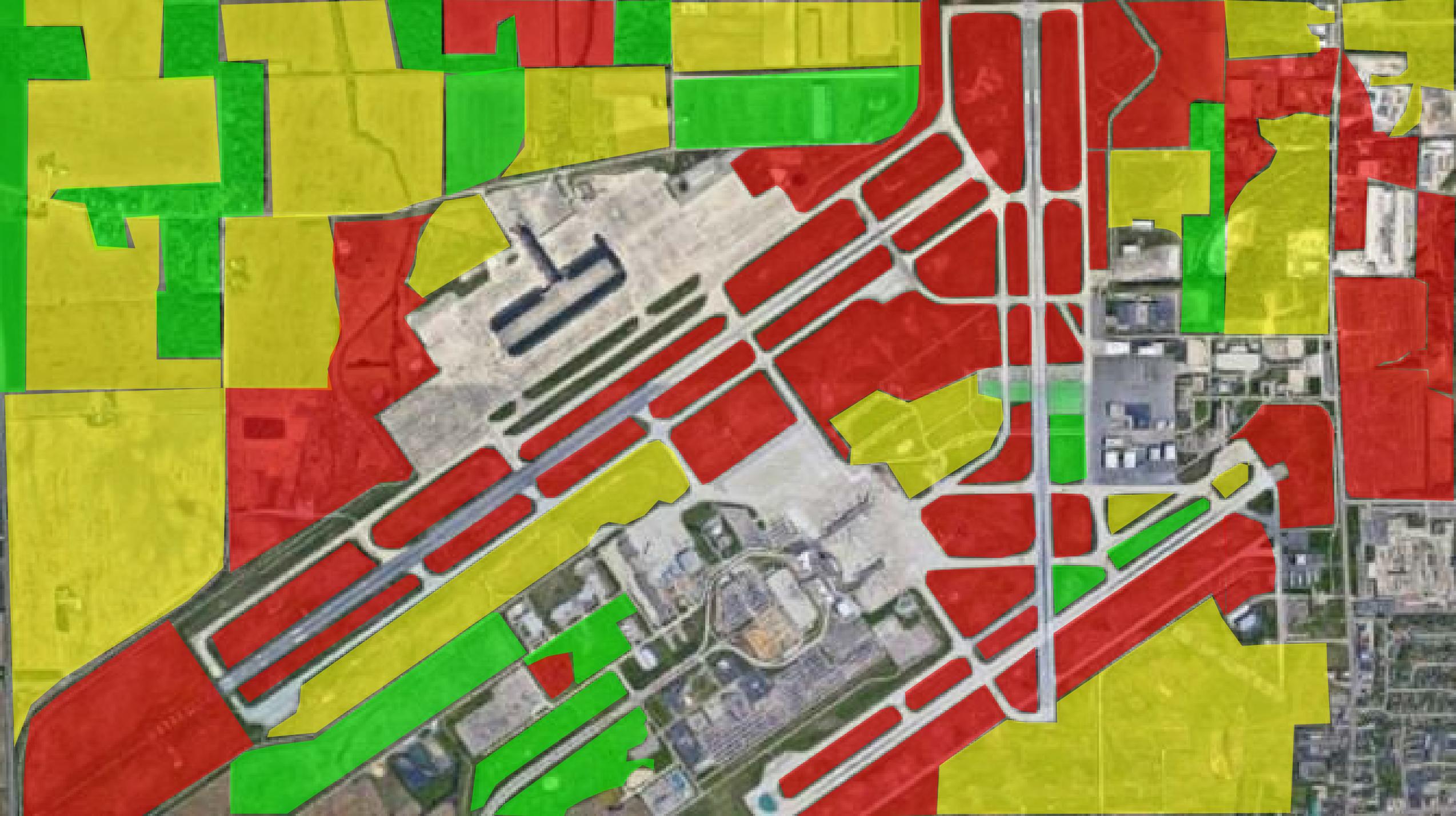
⁵*U.S.D.A. Wildlife Services National Wildlife Research Center, Ohio Field Station*

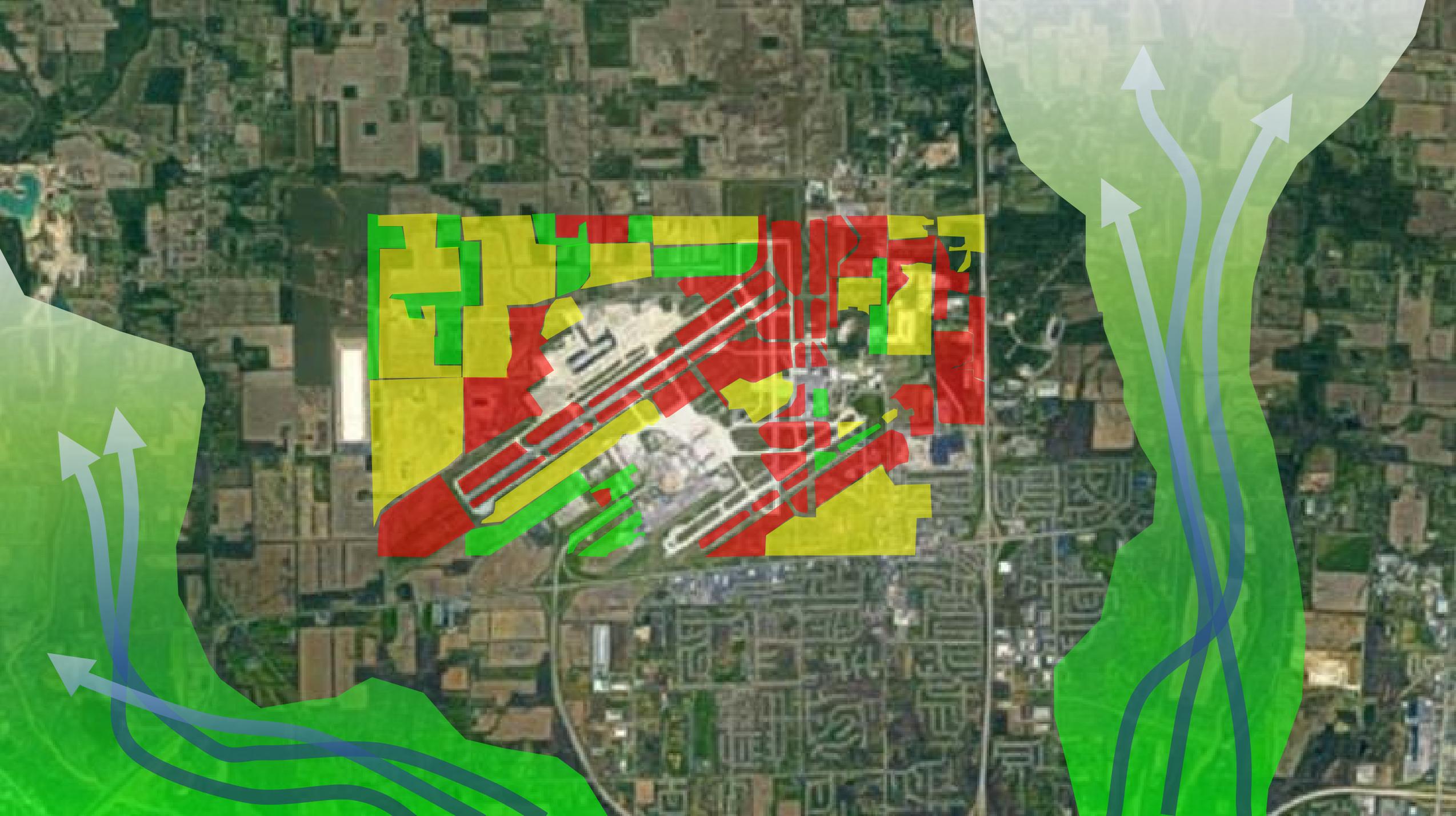


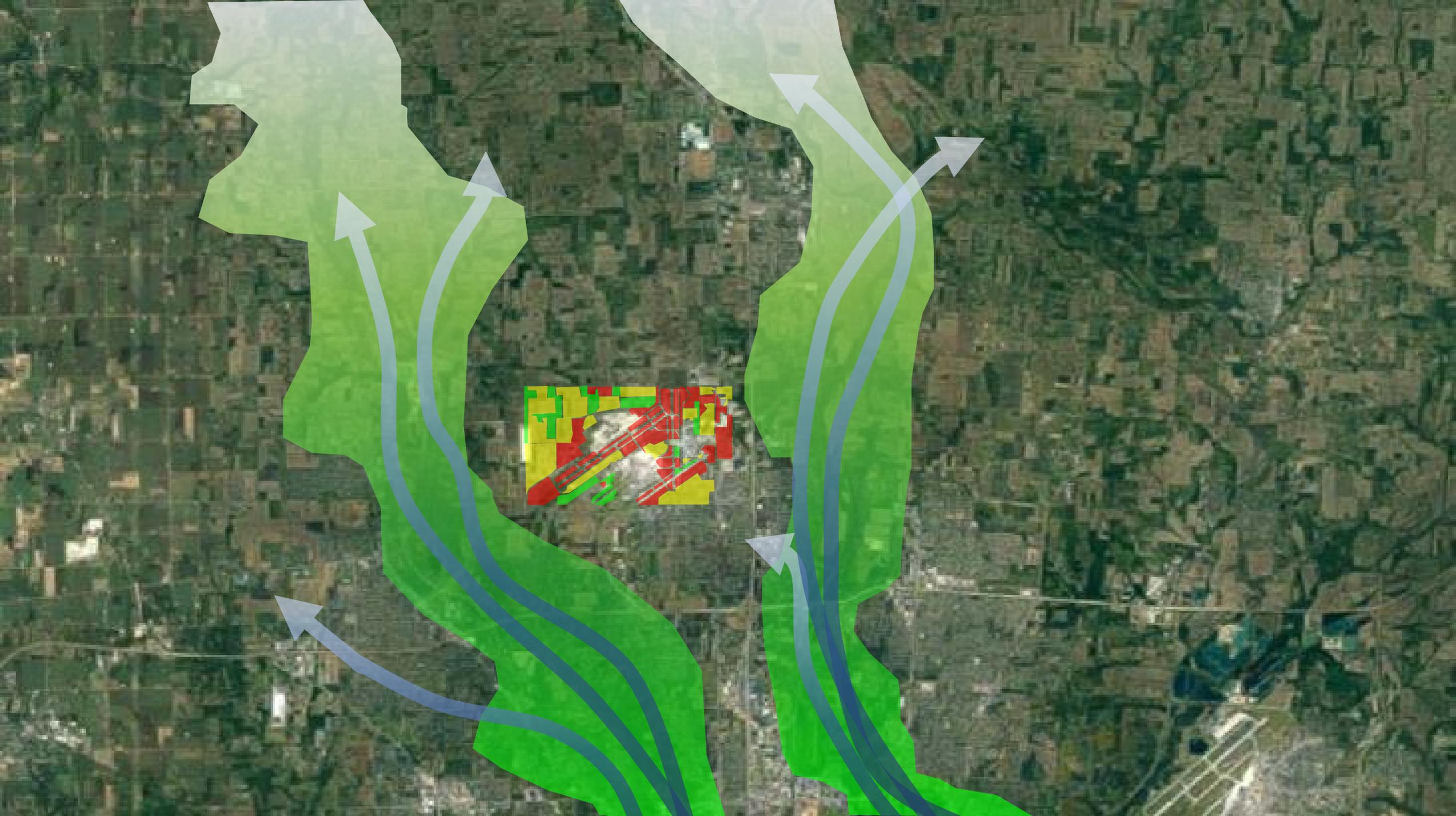














Land Cover Recommendations





**Alternative
Landcovers**





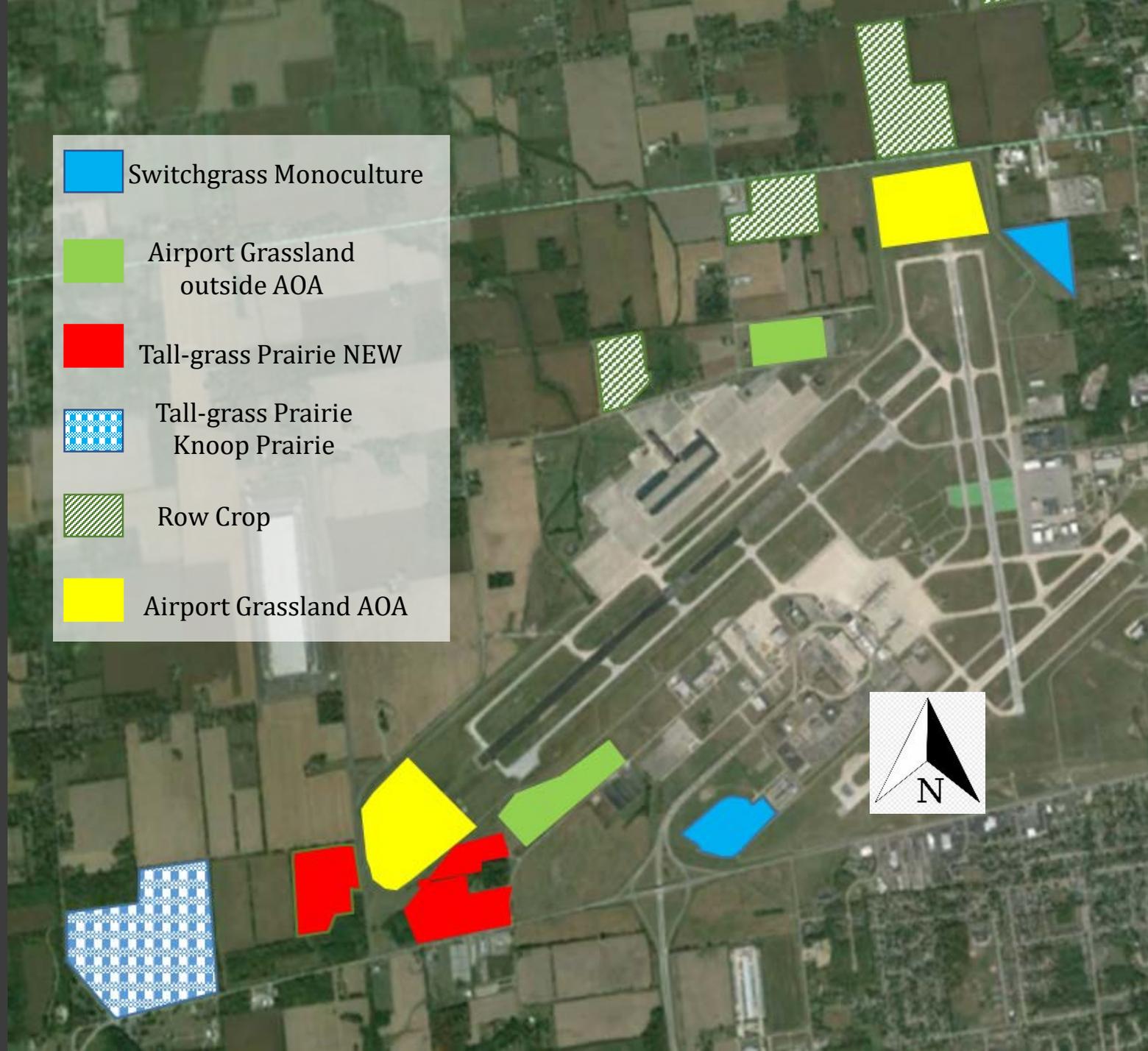
Recent Alternative Landcover Investigations
Switchgrass Demonstration Project

Recent Alternative Landcover Investigations

Aullwood Audubon

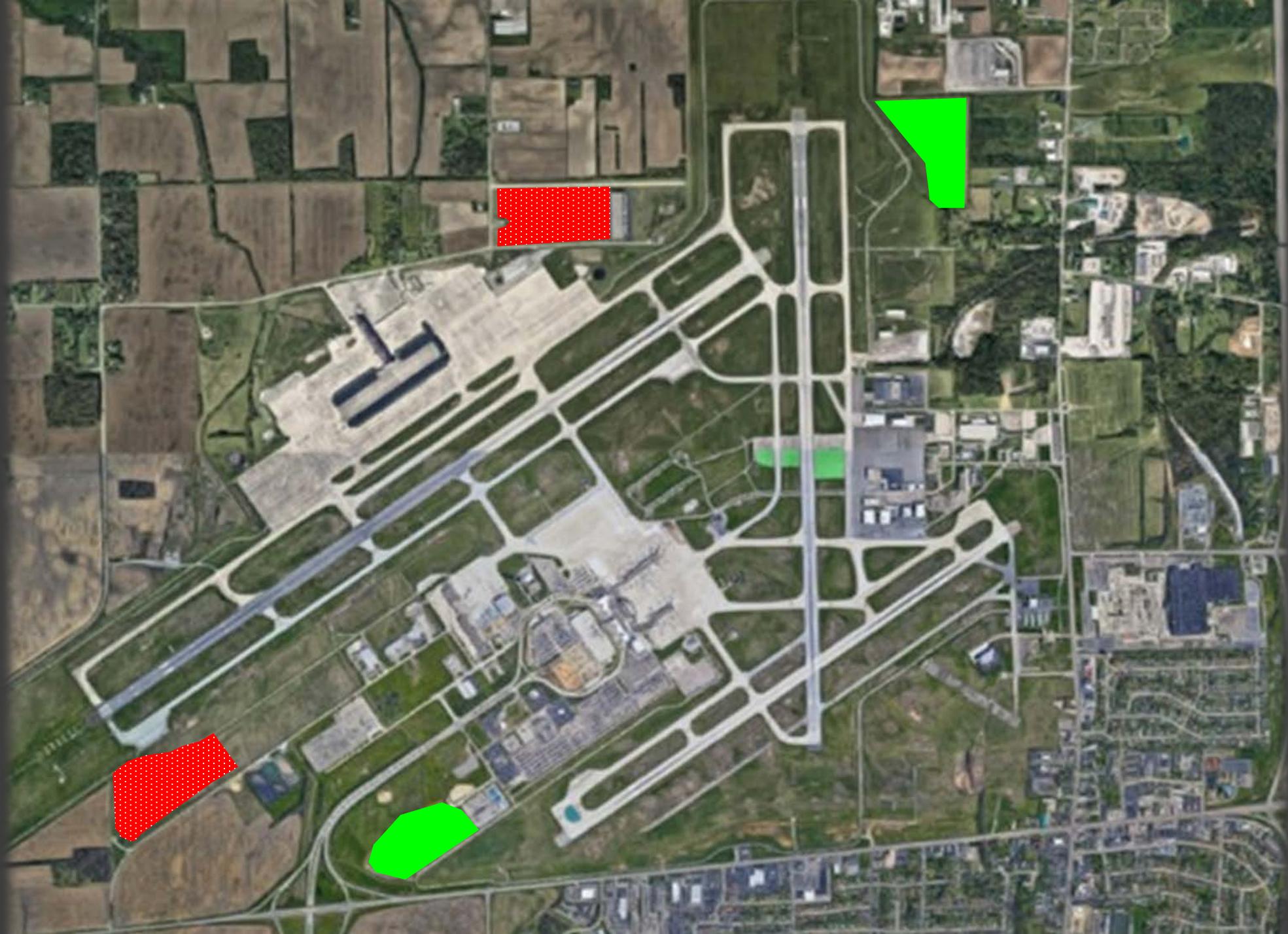
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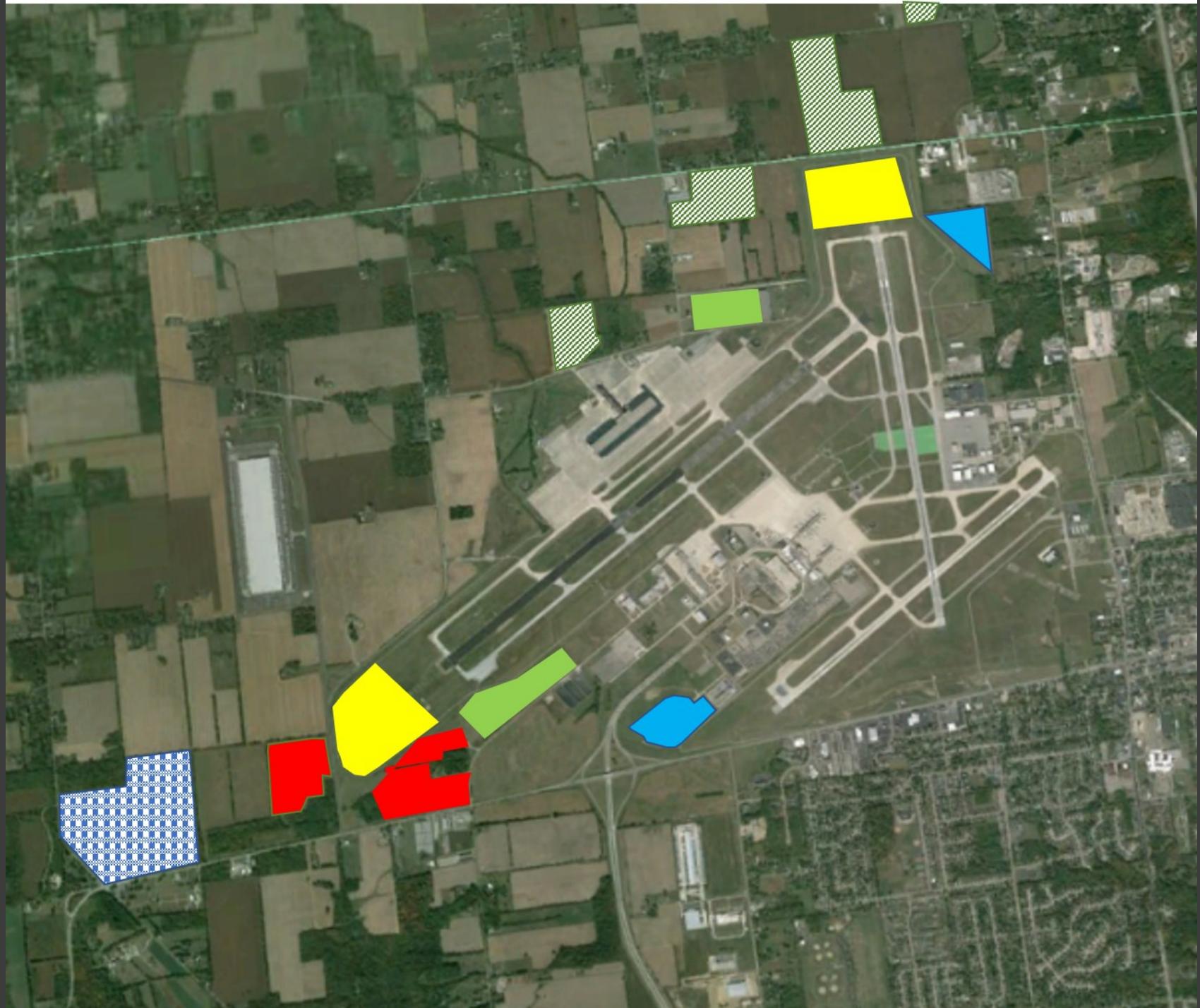
*Dayton
International
Airport*



Do alternative landcovers
reduce wildlife hazards?

Initial Answer... Not Really



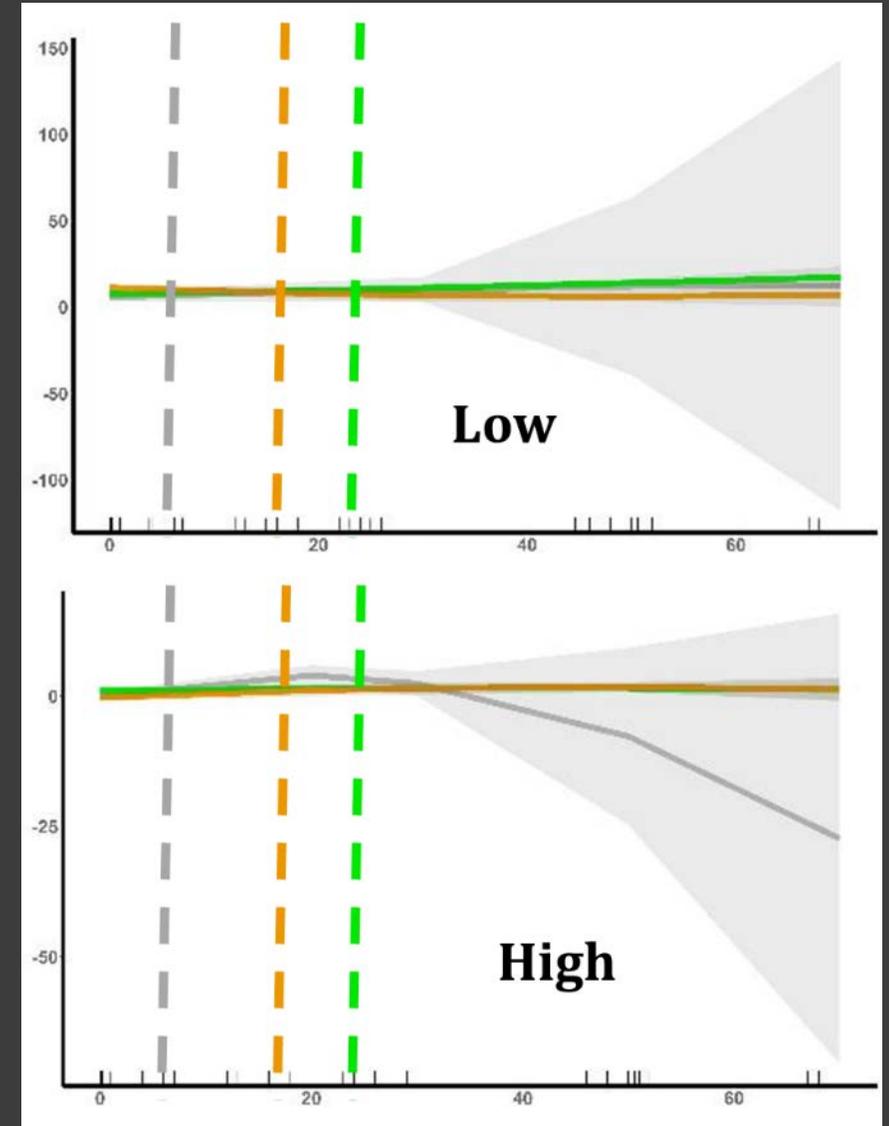
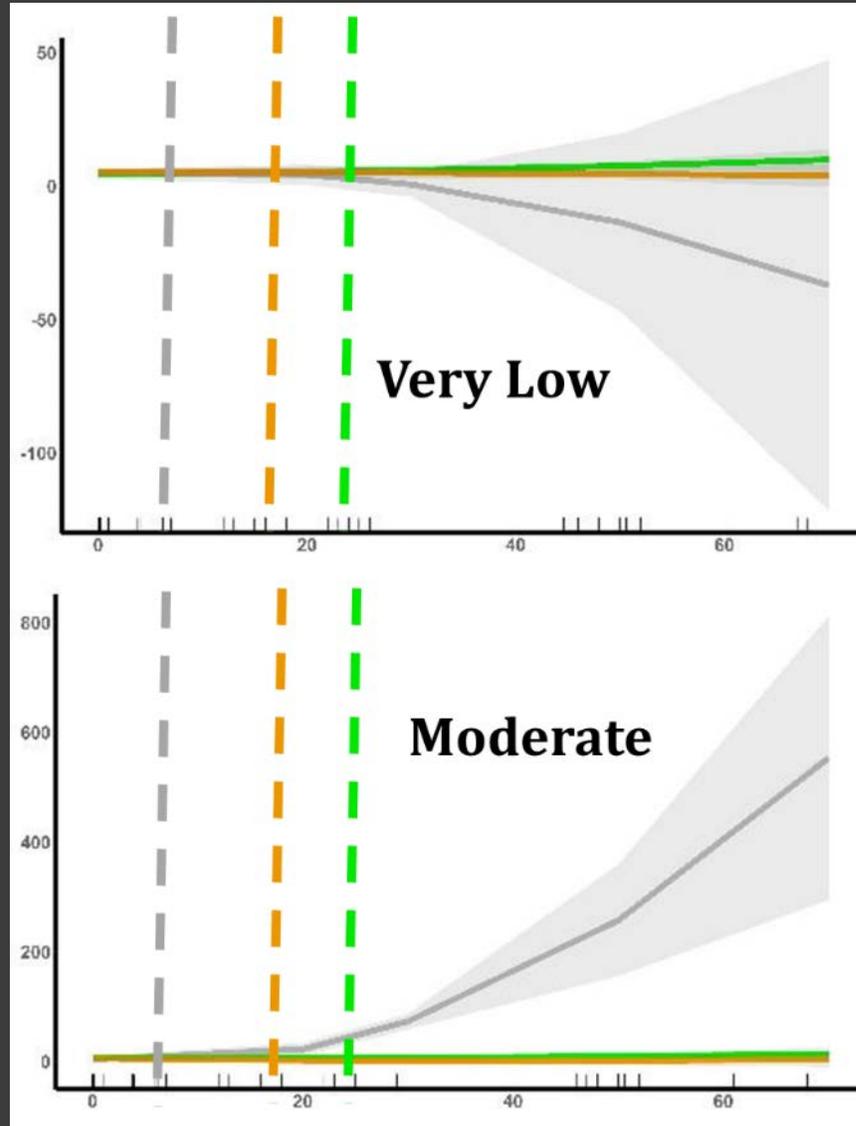


Switchgrass Demonstration Project

Birds
by
Hazard
Category

Average
Relative
Abundance

Year



Switchgrass Coverage (%)



Variability in Switchgrass Establishment



Aullwood-Dayton Project



© Wisconsin Soybean Association



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Short-distance
Migrants

Shannon's Diversity



**Foraging
Guilds**

How can we describe bird communities?

RAPTORS

Vultures

**Nesting
Guilds**

Warblers

Long-distance Migrants

Aircraft Strike-specific Descriptions

Hazard Category

Dolbeer and Wright (2009)

Relative Hazard Scores

DeVault et al. 2011, 2018 (Civil)

Pfeiffer et al. 2019 (Military)

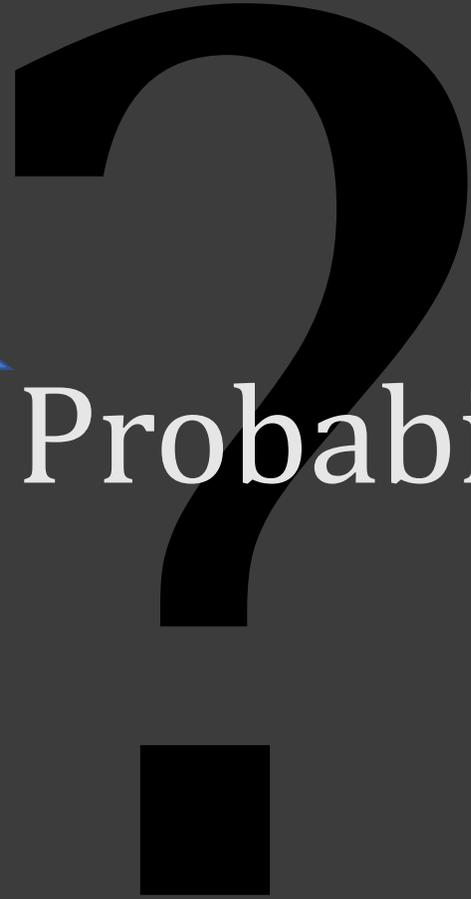
Bird Community
Characterization

Hazard Category

Cumulative Hazard Score

Conservation Priority Score

Extreme Observations



More Birds =  Probability of a Strike

Extreme Observations

LOW

$50 < CHS \leq 100$

MEDIUM

$100 < CHS \leq 150$

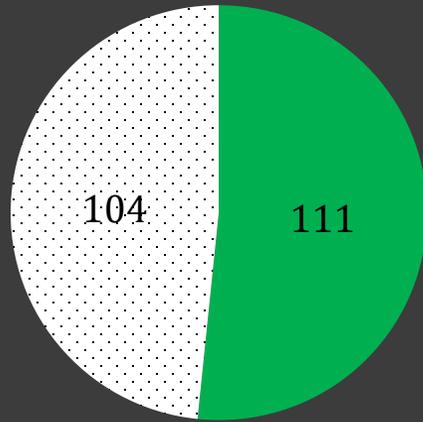
HIGH

$CHS > 150$

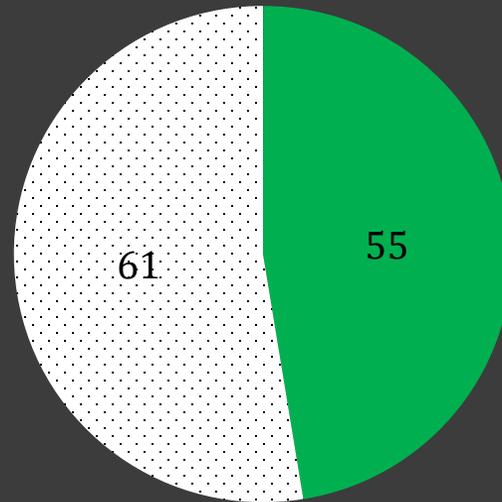
Switchgrass Demonstration Project

Non-breeding Birds

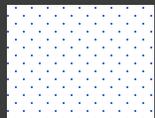
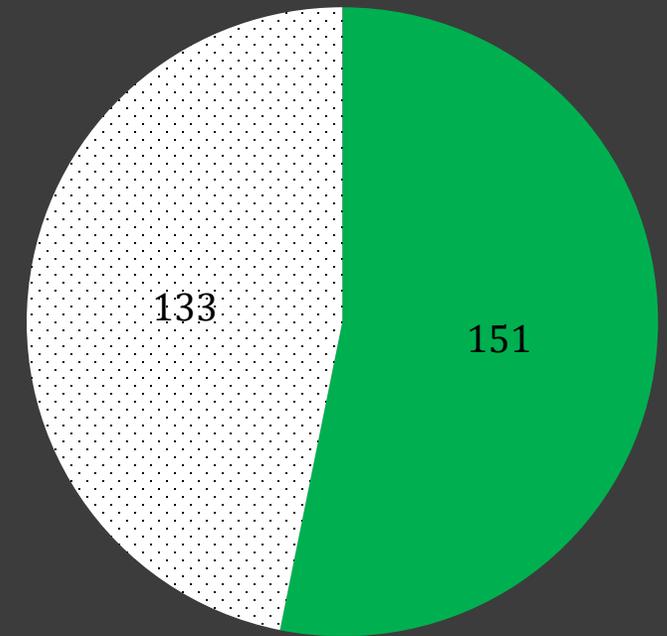
Low ($50 < x \leq 100$)



Medium ($100 < x \leq 150$)



High ($x > 150$)



Control

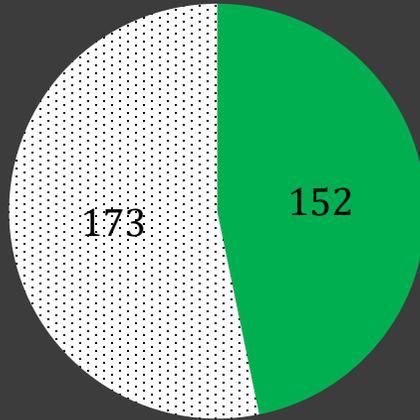


Switchgrass

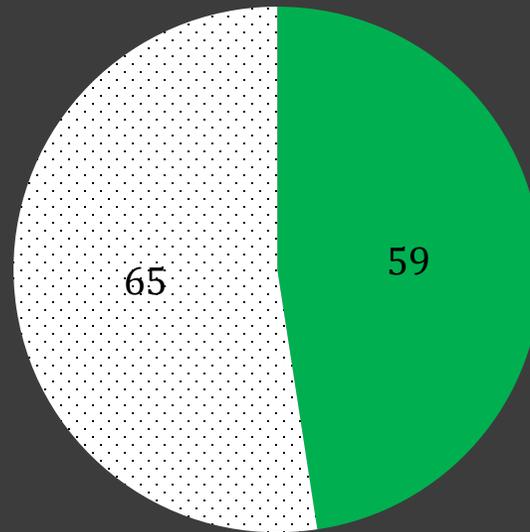
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Breeding Birds

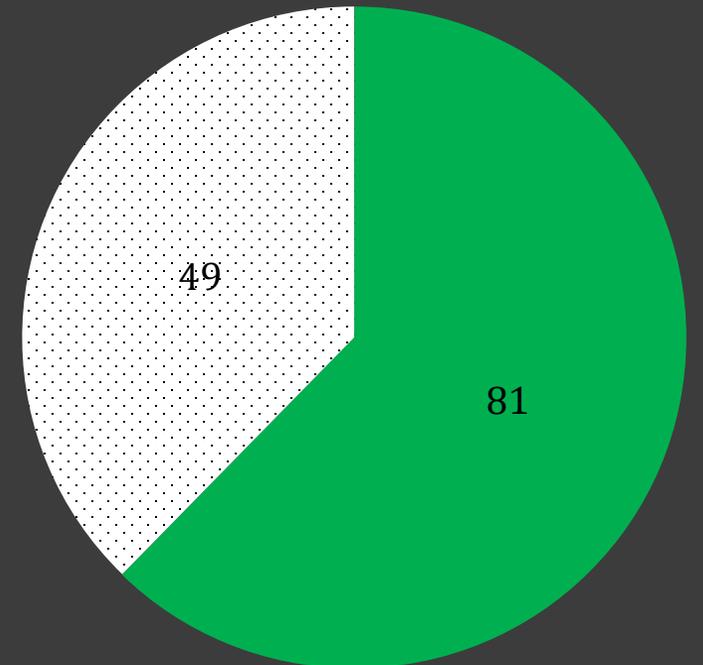
Low ($50 < x \leq 100$)



Medium ($100 < x \leq 150$)



High ($x > 150$)



Control

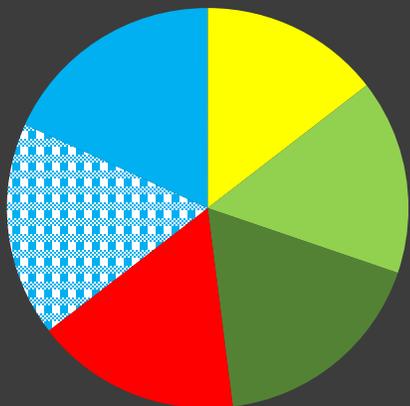


Switchgrass

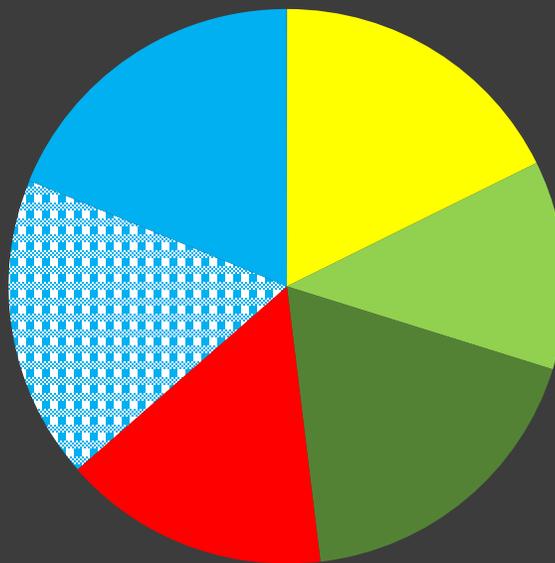
Aullwood-Dayton Project

All Seasons

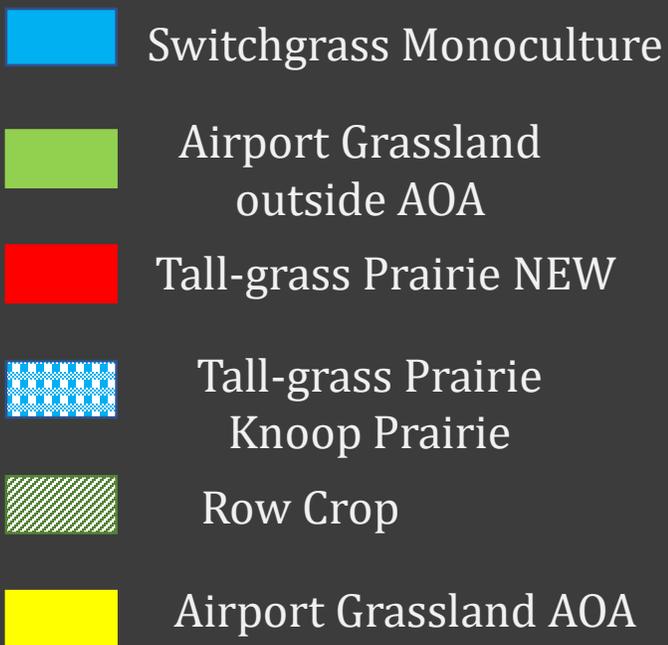
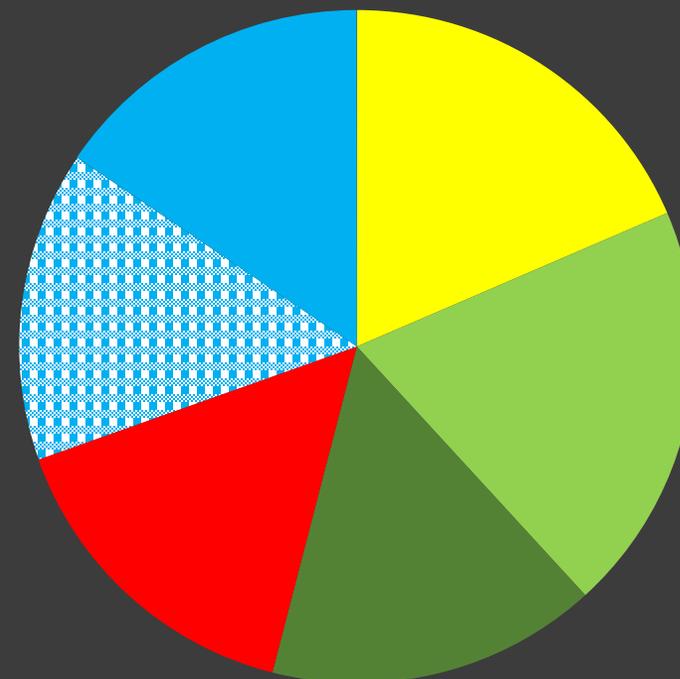
Low ($50 < x \leq 100$)



Medium ($100 < x \leq 150$)



High ($x > 150$)



Did Results Change?

No... But Interpretation Did

Focus Management Actions



Bad Characters





275



176



173



165



155

Primary Culprits

Aullwood-Dayton Project

All Seasons



82

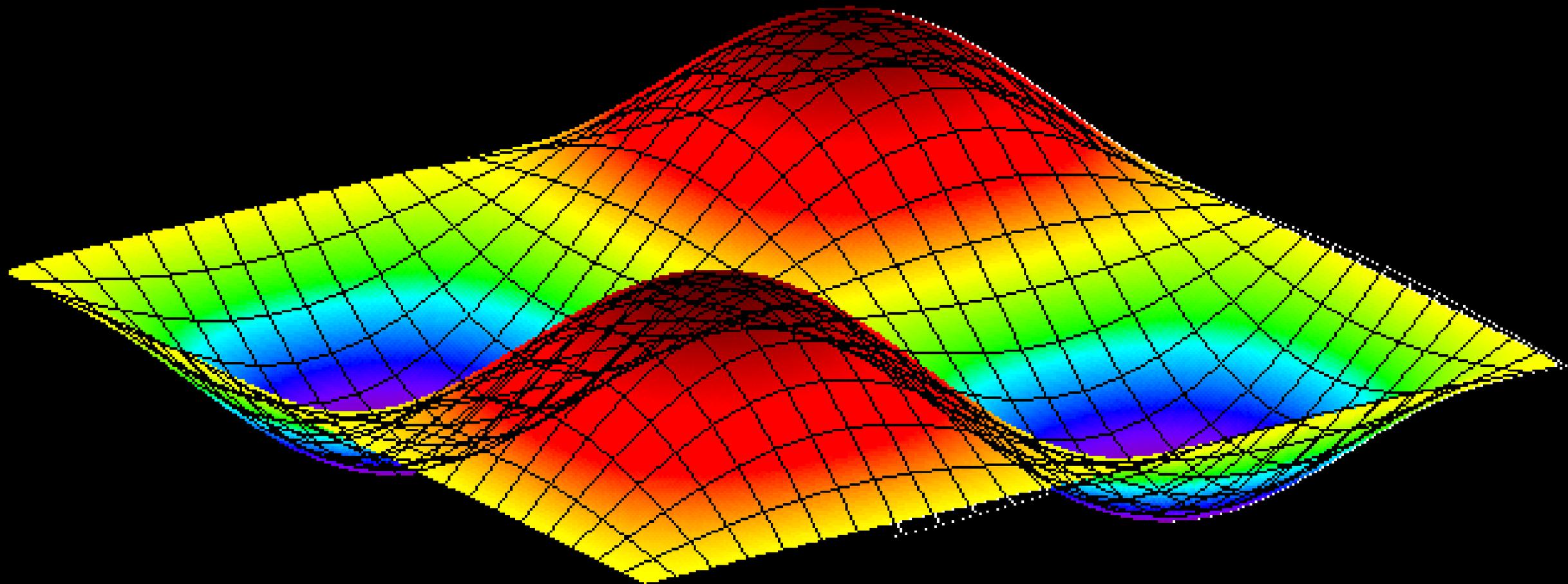


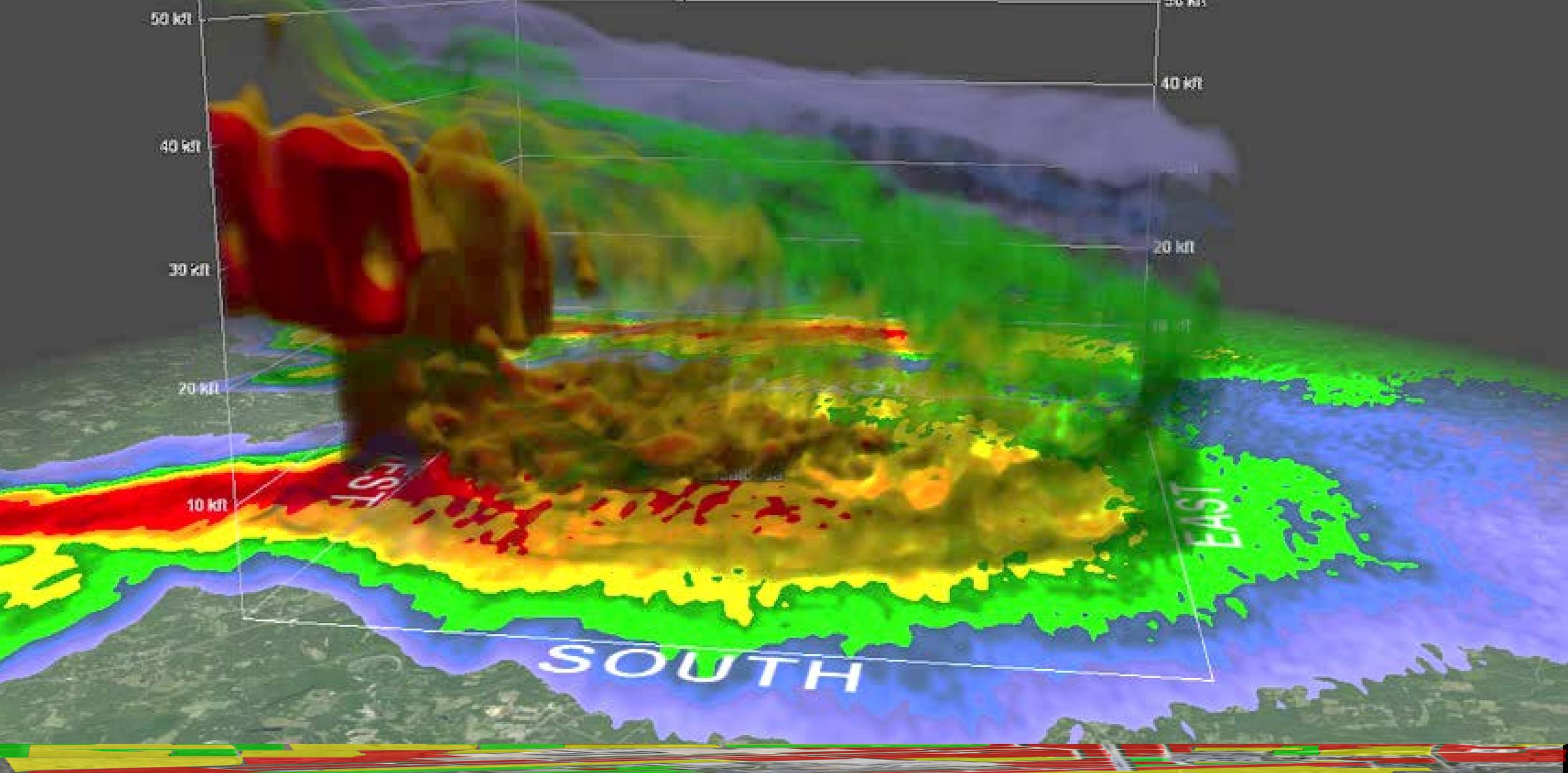
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Special Thanks

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