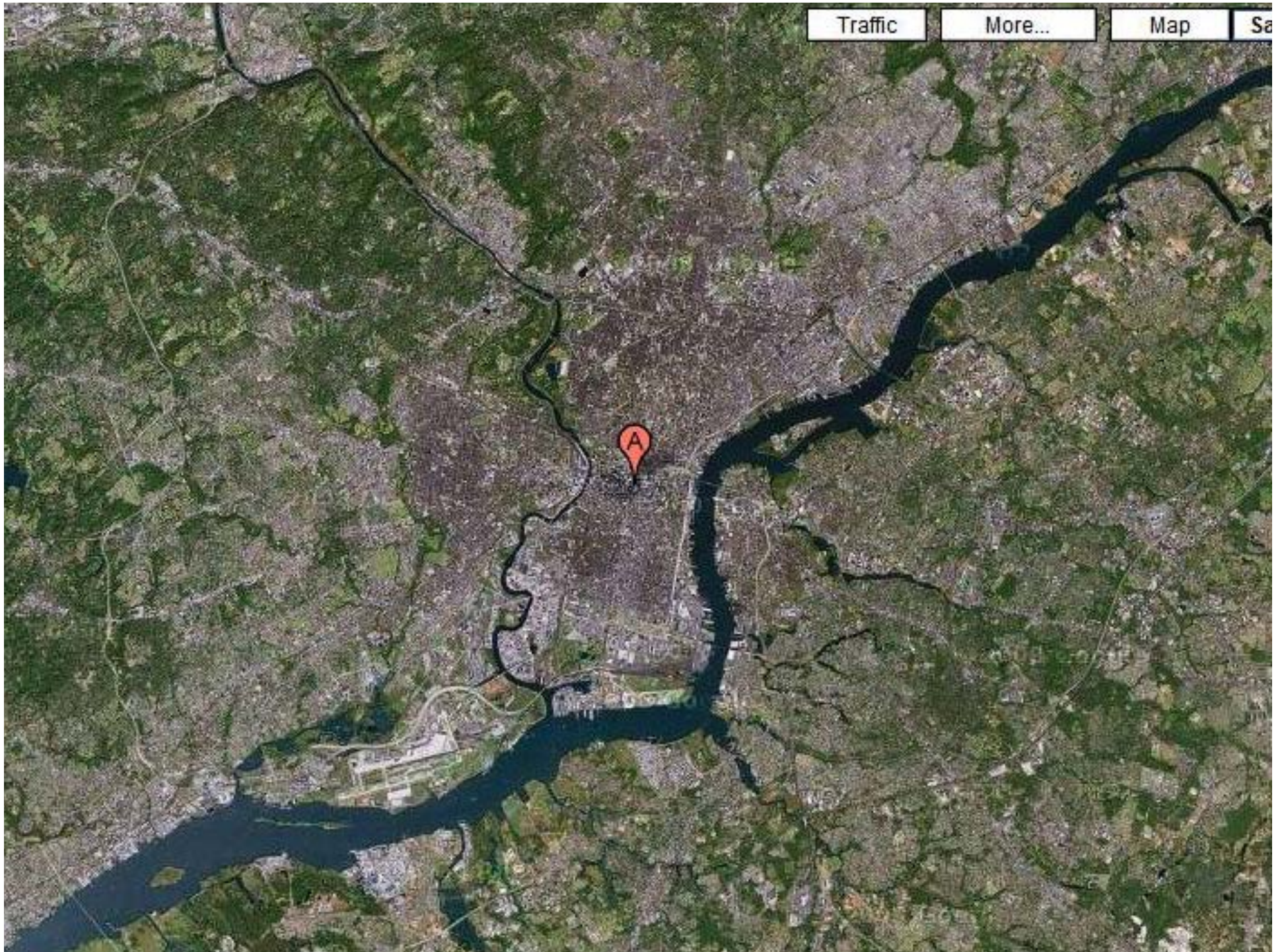




Ecological Conservation and Stewardship

Elizabeth Ciuzio
Stewardship Project Director - South Region
New Jersey Audubon



Traffic

More...

Map

Sa



Bobolink

ST



Horned Lark

SOC



Savannah Sparrow

ST



SOC

Meadowlark



Red-tailed Hawk



Turkey



Short-ear Owl

SE



Barn Owl

SOC



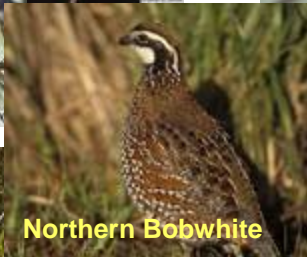
Sedge Wren

SE



Henslow's Sparrow

SE



Northern Bobwhite

SOC



Indigo Bunting



Ring-necked Pheasant

SE



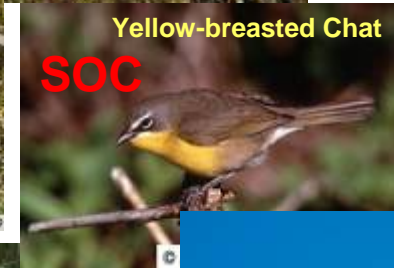
Upland Sandpiper

SE



Grasshopper Sparrow

ST



Yellow-breasted Chat

Dicksissle



Dickcissel



Vesper Sparrow



American Goldfinch



Lapland Longspur



Northern Harrier

SE



Rough-legged Hawk



Chipping Sparrow



American Kestrel

SOC



Field Sparrow

Status of Grasslands and Avifauna

- Populations of 15 out of 19 grassland birds of eastern NA are experiencing declines.
- In New Jersey, 41% of state endangered birds are grassland species; 29% are threatened birds.
- Twenty percent of New Jersey's rare and declining species rely on grassland habitat.



Grasshopper Sparrow



Peter S. Weber

Upland Sandpiper



Bill Dalton

Horned Lark

Market-based Solutions

- Traditional agricultural systems:
 - Bird seed
 - Biofuels
- Forested systems:
 - Mulch
 - Horse bedding



This **CONSERVATION INNOVATION GRANT** will...

- ✓ Establish a viable alternative energy option for farms,
- ✓ Diversify the farm economy and availability of local products,
- ✓ Provide nesting habitat for state threatened and endangered grassland-dependent bird species,
- ✓ Sequester increased amounts of carbon in the soil,
- ✓ Reduce need for chemical fertilizer, and
- ✓ Improve soil health by increasing soil organic matter.



The development of a warm-season grass (WSG) pellet biofuel industry has amazing potential to revitalize rural economies by absorbing the surplus production of the agricultural sector and reducing the economic and environmental costs associated with fossil fuel use. The rising price of heating oil and natural gas will increasingly make the replacement of these fuels with biomass energy more financially attractive to consumers. Relative to heating oil systems, grass pellets have the potential to reduce fuel heating costs and greenhouse gas emissions by up to 30% and 90%, respectively. As the economic benefits of grass pellets are recognized, production of the grasses will be providing natural resource protection of our soils, water, air, and critical grassland habitat.



FACT: Native grasslands are one of the most endangered ecosystems in the Northeast. They are also one of the only habitats in New Jersey that face an almost immediate threat of disappearing from the state. As a result, grassland-dependent bird species (like the Bobolink) that rely on quality native, early successional habitat have experienced significant declines in population.

Establishing Critical Grassland Habitat for Endangered Species through Biofuel Crops

Laine Farms



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Photo by APHIS/USDA/ARS/ARS/ARS

Recommendations



- Understand and prioritize the critical role that agricultural lands play in sustaining biodiversity.
 - Identify market-based solutions that provide incentives to land managers to include considerations for native wildlife in their farm plans.
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