



Exploring the Conservation Toolbox for the Benefit of Birds and People

**KHARA STRUM – DIRECTOR
PHILANDER CHASE CONSERVANCY**

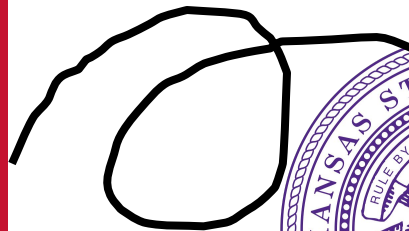
Who Am I?



Philander Chase Conservancy



Point Blue Conservation Science

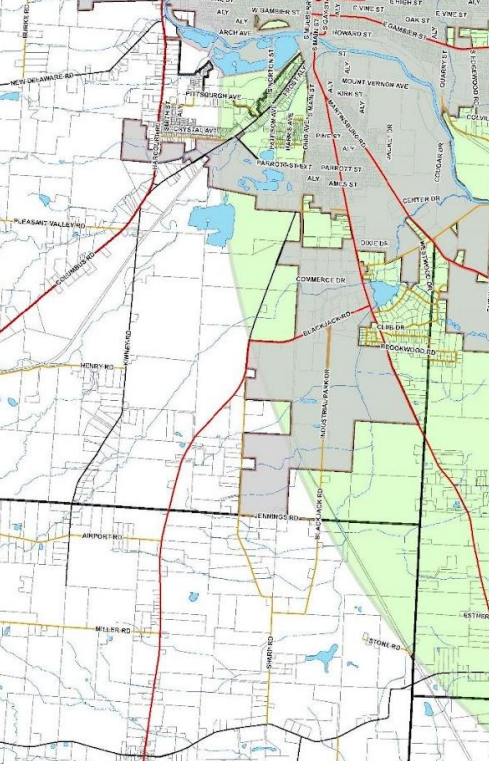
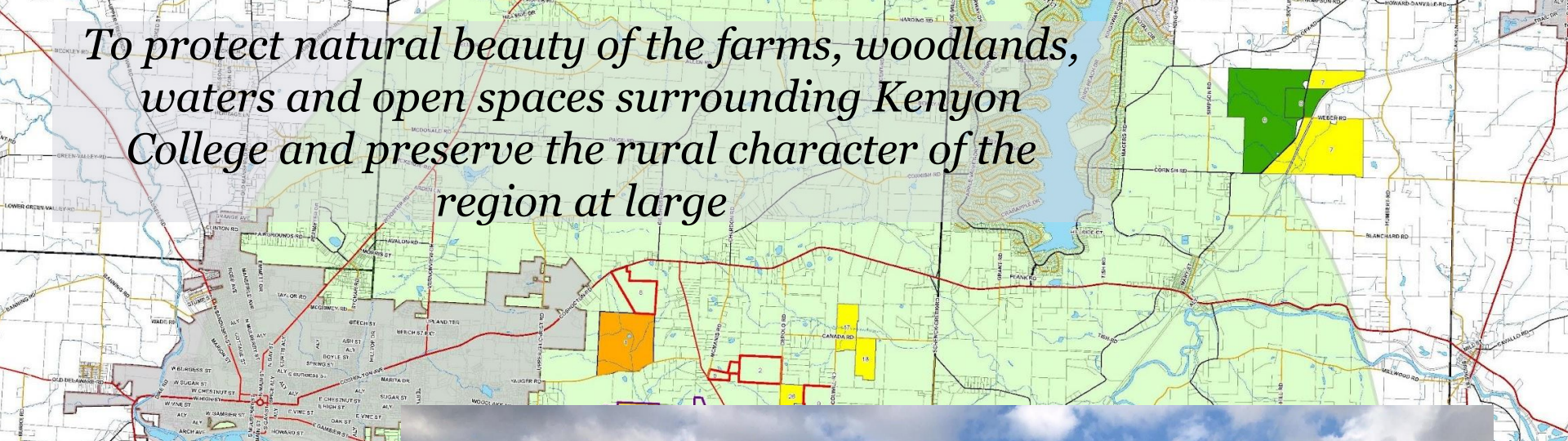










A photograph of a rural landscape. In the background, there are several red barns with white roofs. In the middle ground, a herd of cows is grazing in a green field. In the foreground, there are tall, thin grasses and some purple-stemmed plants. The sky is overcast.

What is Philander Chase Conservancy?

...work cooperatively with landowners to protect and conserve land for its natural, recreational, scenic, or productive value through the **donation or purchase** of conservation and agricultural **easements**.

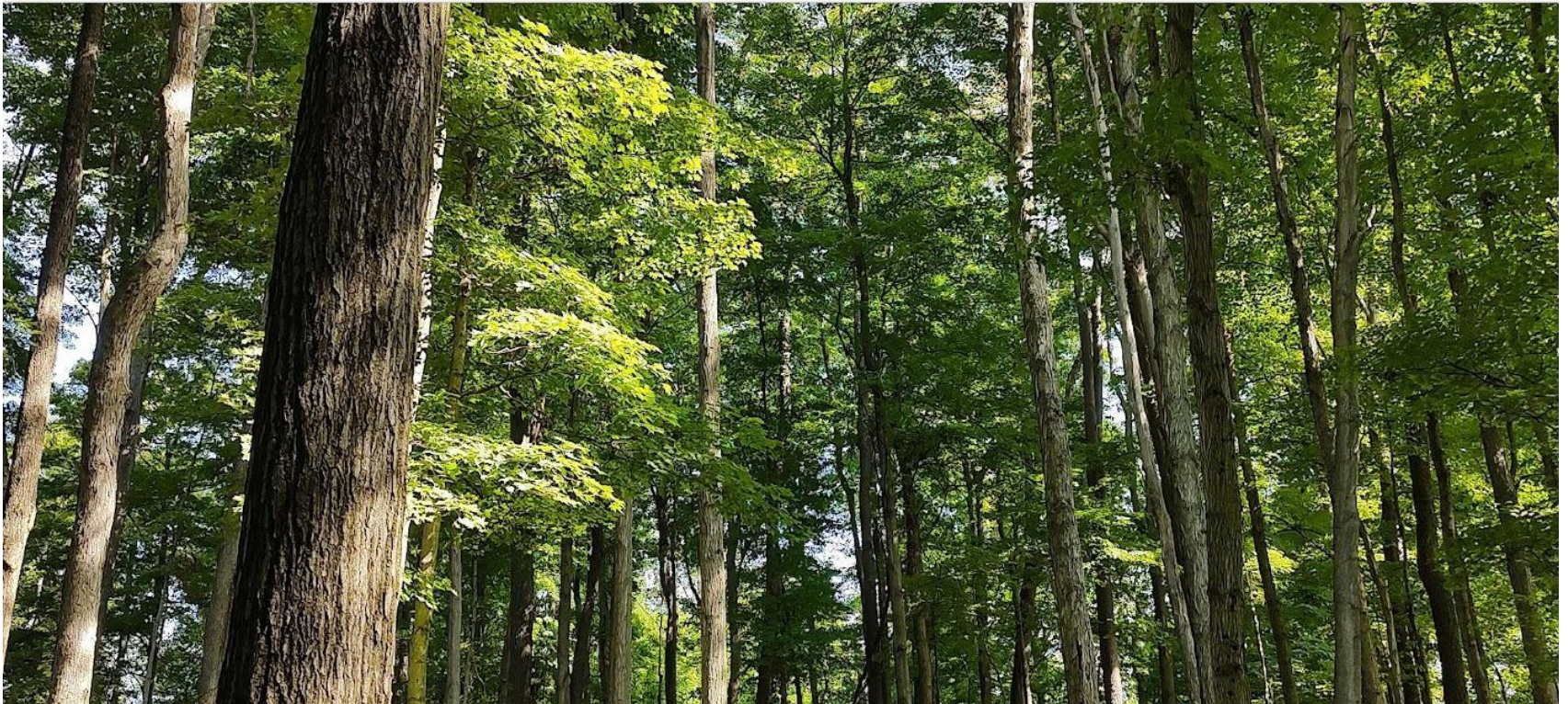
To protect natural beauty of the farms, woodlands, waters and open spaces surrounding Kenyon College and preserve the rural character of the region at large



- | | |
|--|--|
|  KCPD Lands |  State& Fed Land |
|  Owl Creek Conservancy |  Philander Chase |
|  PChase Ag. Easement |  Ramser Arboretum |
|  PChase Cons. Easement |  Other Protected |

Carbon Neutrality

- 1,500 ac of woodlands conserved & potential to reforest existing and future fee properties
- 2,100 metric tons of CO₂ sequestered
- Testing climate resilient practices on farmland





Internships



Faculty &
Staff



Collaboratio
n

Accreditation with LTAC

A Mark of Distinction

The accreditation seal **AFFIRMS** national quality standards are met.



- SOUND FINANCES
 - ETHICAL CONDUCT
 - RESPONSIBLE GOVERNANCE
 - LASTING STEWARDSHIP
-

www.landtrustaccreditation.org

Well, this will do!



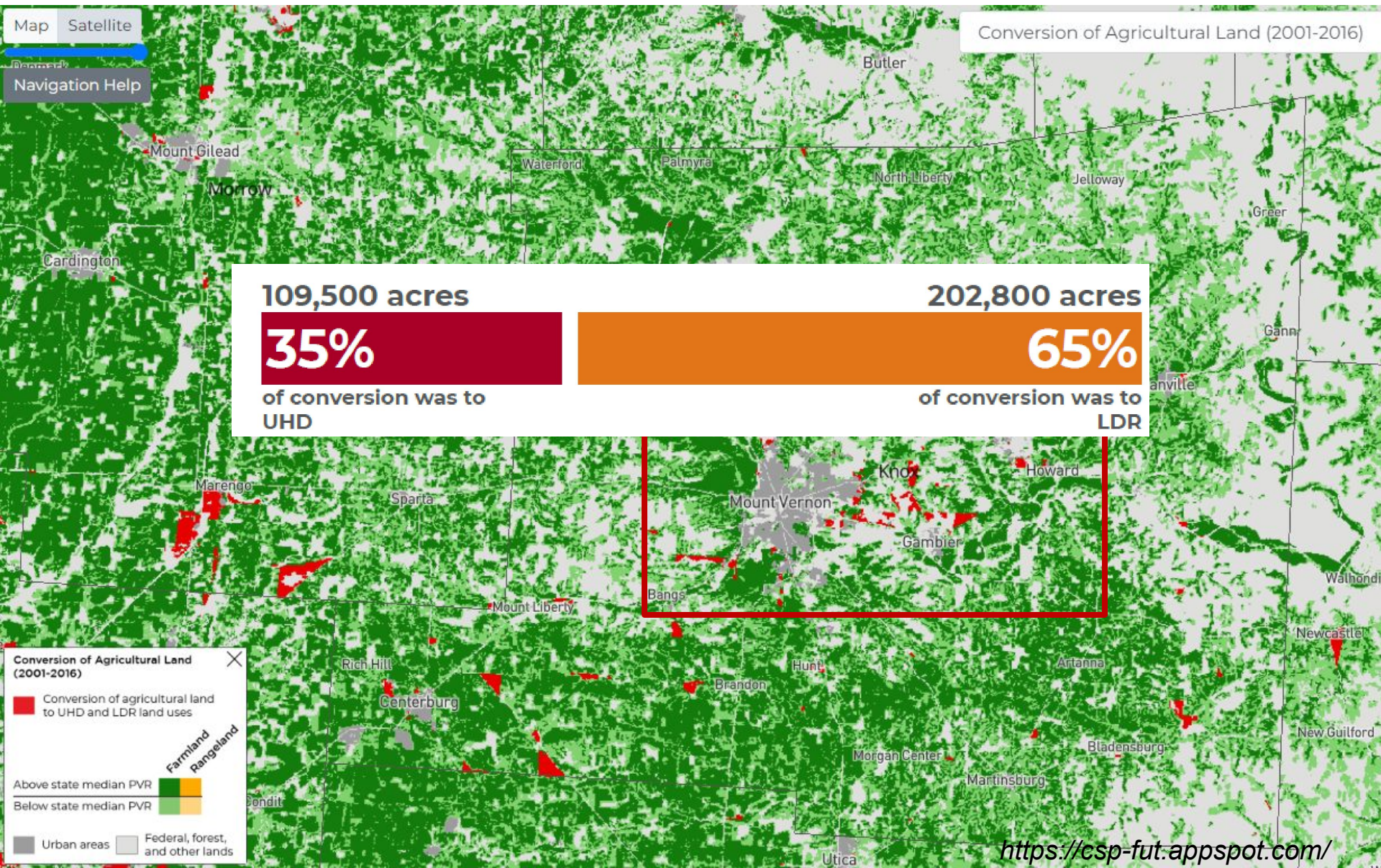
Well, this will do!



Why Preserve Farmland?

- Agriculture is the #1 industry in Ohio
 - Soybeans: \$2.3 billion
 - Corn: \$2.0 billion
 - Poultry: \$1.1 billion
- 40% of Ohio soils are prime farmland

Why Preserve Farmland?



Environmental Benefits

- Quality of life
- Land value
- Air & water quality
- Habitat continuity & diversity
- Recreational opportunities

Personal Reasons

- Personal relationship with the land & family
- Appreciation of environmental benefits
- Financial/tax benefit



How Properties are Prioritized

- 1) Mission Alignment
- 2) Viewshed
- 3) Location/Adjacency
- 4) Ecological Value
- 5) Community Value
- 6) Agricultural Value
- 7) Historic Value

How Land Trusts Conserve Land



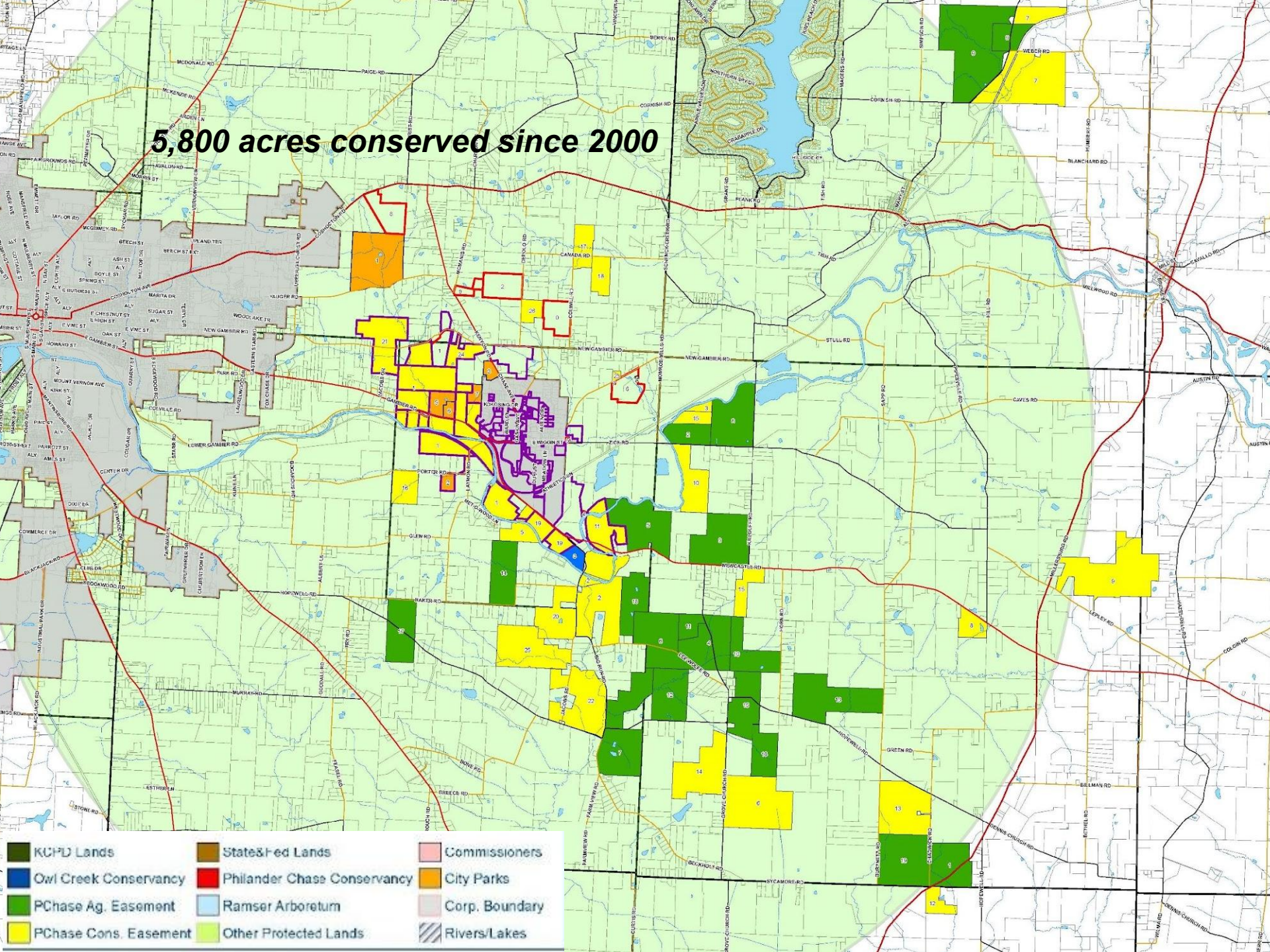
monitoring

Funding for Land Conservation

- Individual donors
- Foundations
- Government agencies



5,800 acres conserved since 2000



- | | | |
|-----------------------|-----------------------------|----------------|
| KCPD Lands | State& Fed Lands | Commissioners |
| Owl Creek Conservancy | Philander Chase Conservancy | City Parks |
| PChase Ag. Easement | Ramser Arboretum | Corp. Boundary |
| PChase Cons. Easement | Other Protected Lands | Rivers/Lakes |

Best Farming Practices

- 4R's
- Conservation
- Tailwater
- Restoration
- Filter Strips
- Hedgerows
- Fish & Wildlife Structures

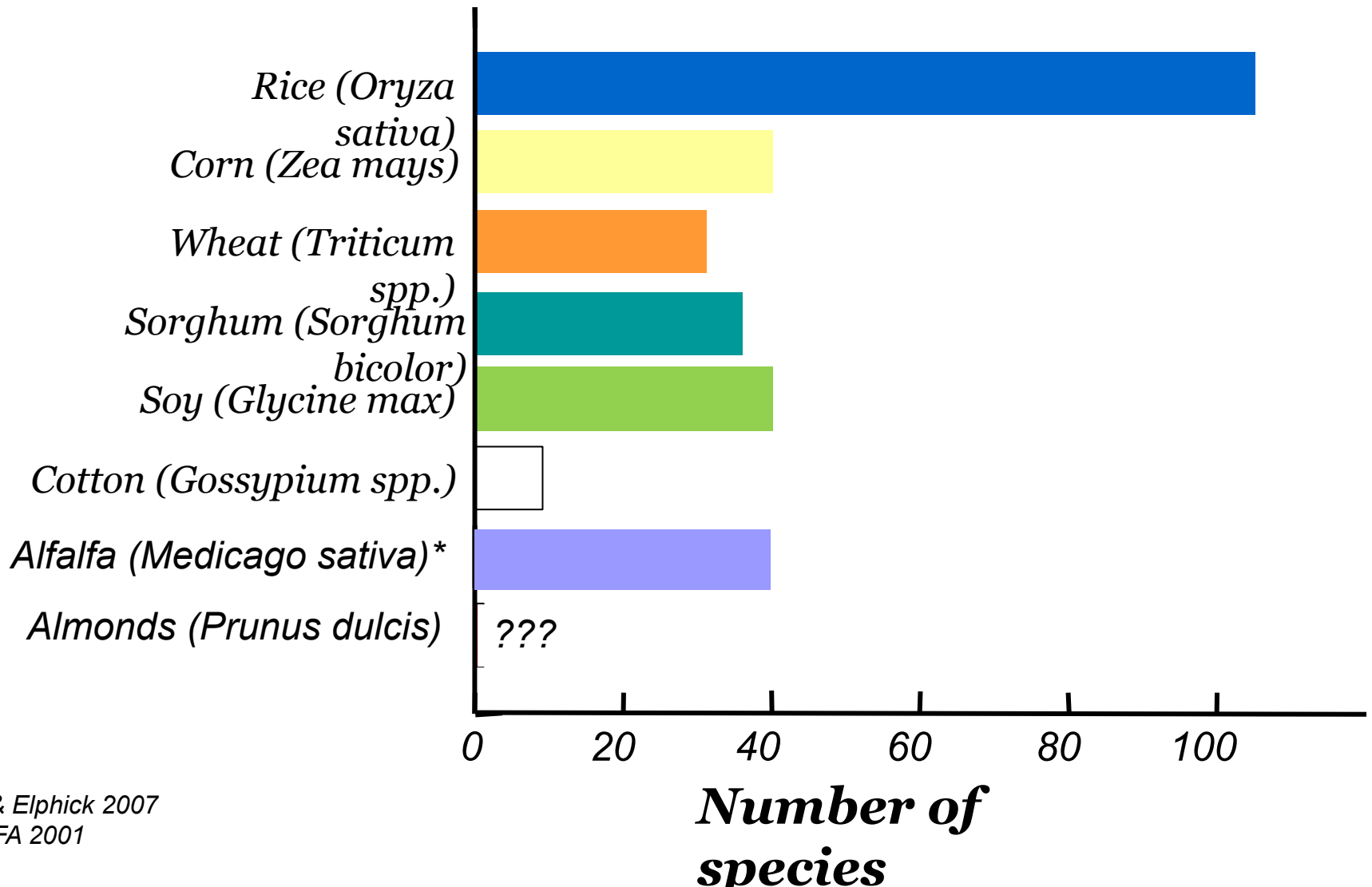


3billionbirds.org

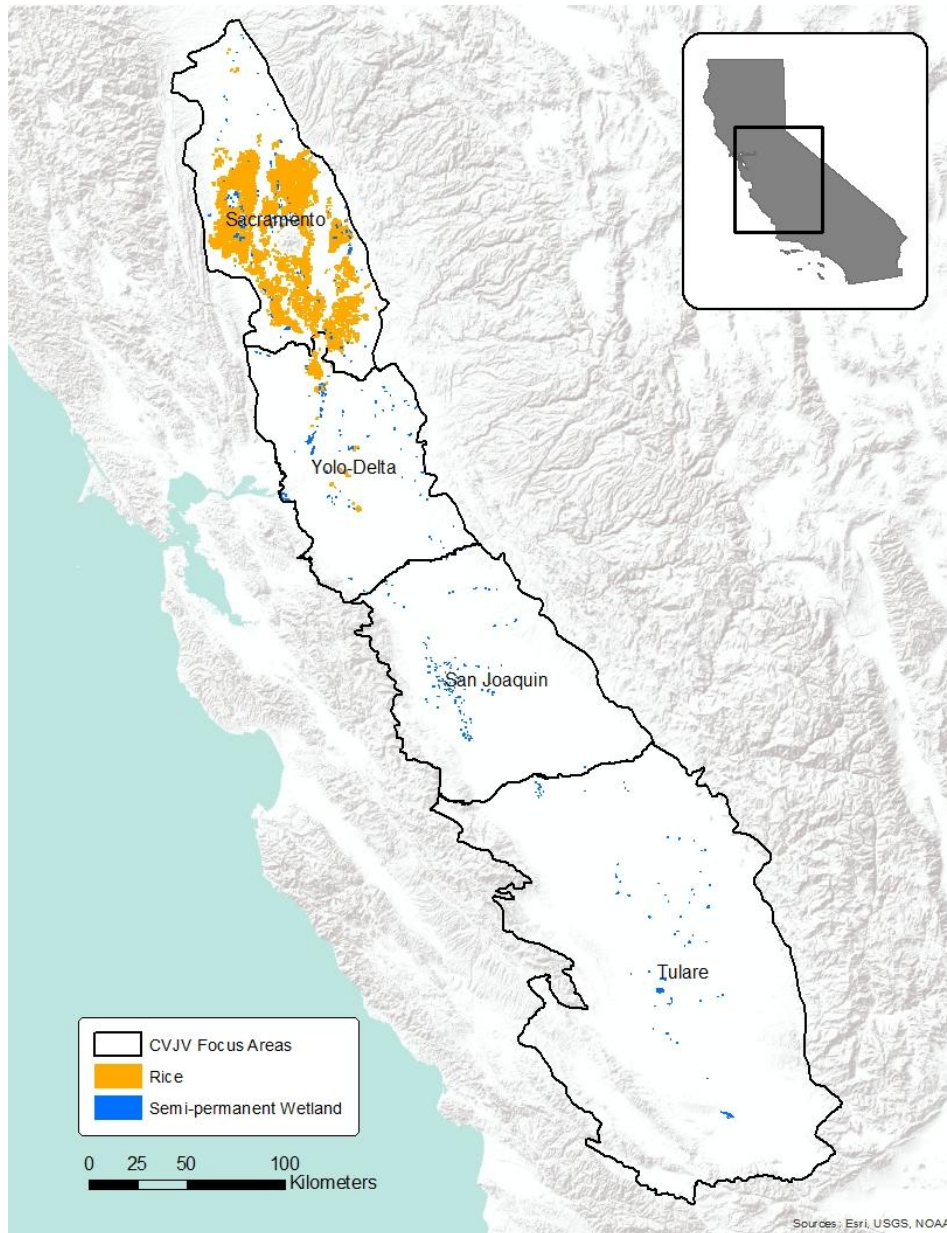
- 2.9 billion fewer breeding birds than in 1970
- Common species have undergone staggering declines
- Landscapes are losing their ability to support birds
- And, landmark conservation efforts have helped bring some birds back.



Bird Use of Crops



Central Valley of California



- 18,000 mi²
- 450 crops & ¼ of the food we eat
- Home to 6.5 million
- Highly modified landscape
- 4million ac of wetlands to 200k ac

In-field management enhancement

Short-term contracts for implementation of waterbird-friendly practices

Practices	When
Early fall flooding with gradual drawdown	Jul – Sep
Residue management with boards-in	Oct – Feb
Winter flooding with variable drawdown	Dec – Mar
Nesting islands	Apr – Sep
Habitat ponds	Apr – Sep



United States
Department of
Agriculture



In-field management enhancement

Short-term contracts for implementation of waterbird-friendly practices in spring and fall



1 **Predictive models**
Birds & Water



2 **Habitat auctions**



3 **Pop-up wetlands**



4 **Save the birds!**

The Nature Conservancy 
Protecting nature. Preserving life.™



United States
Department of
Agriculture



Conservation Cover

A photograph of a lush green field of cover crops, likely vetch, in the foreground. In the background, a group of people is walking and talking, suggesting a field tour or educational event. The scene is bright and sunny, with a clear sky.

- 1) Attract beneficial birds
- 2) Water infiltration
- 3) Water quality
- 4) Erosion reduction

Filter Strips



Reduce:

- Suspended Solids by 85%
- Phosphorus by 75%
- Ammonium by 50%
- Nitrates by 60%
- E. coli by 25%

Duchemin and Hogue, 2008

Short-term Enhancement

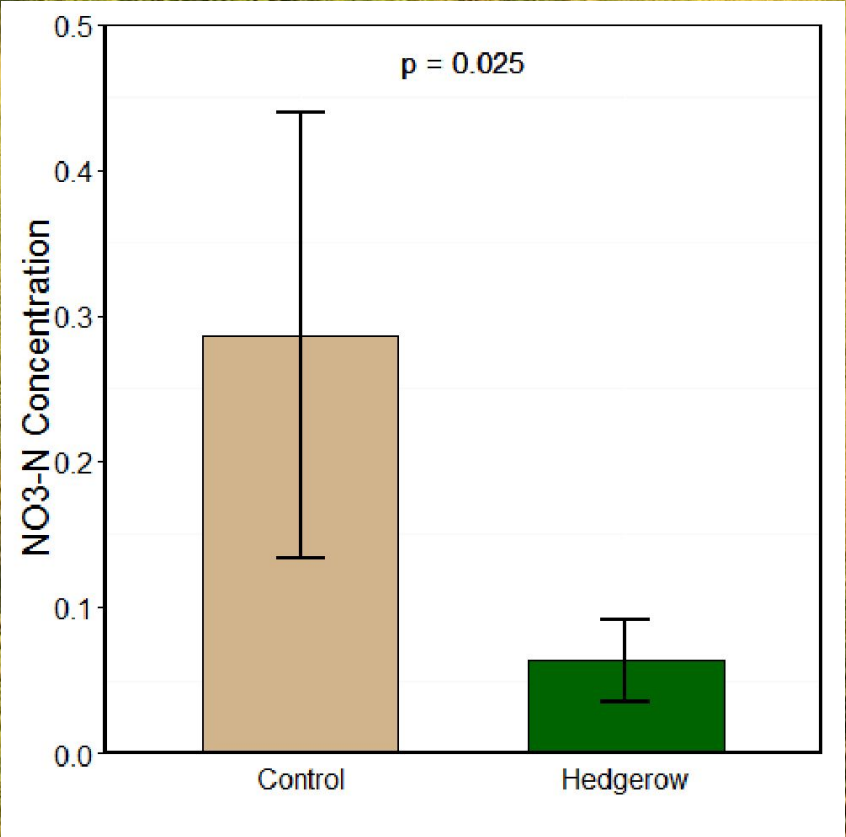
- *Short term and voluntary - long term commitments are not required*
- Enhances the habitat value of farms without taking land out of production
- Offers incentive payments for several management practices
- *Menu of practices gives farmers flexibility*

Restoration

A landscape restoration site. In the foreground, there's a dirt path that has been eroded, showing distinct wheel tracks. To the left of the path, there's a field of tall grasses and numerous bright orange flowers. Several young trees are planted in rows, each protected by a green cylindrical guard. A large, mature weeping tree stands on the right side of the path. The background shows a green field, a line of trees, and distant mountains under a clear blue sky.

- 1) Attract beneficial birds
- 2) Water infiltration
- 3) Water quality
- 4) Carbon sequestration
- 5) Erosion reduction

Restoration



Velas et al. 2014

Hedgerows

“Every farm has a parcel that can be restored to natural habitat.” — Charlie Rominger

- Birds species richness increased by 30%
- Bird abundance increased by 40%
- Native vegetation insectivorous birds by 60%
- Native vegetation increased raptors by 130%



Services Provided by Birds



7 different types of agricultural pests:

- *Weevils*
- *Cutworms*
- *Alfalfa loopers*
- *Flies*

-
- *Avg 2.2 rodents caught per 5 min observation*
 - *Max: 20 rodents in 5 minutes!*



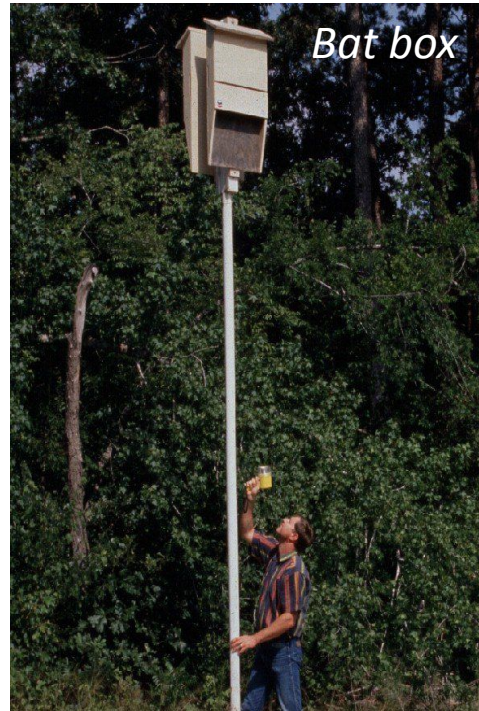
Reduced Mummy Nuts

- *from 2% - 96%*
- *60.2% at orchard edges and 14.4% at orchard interiors*
- *positive correlation with the # of plant species in understory & the proportion of natural habitat within 1 km*

Fish & Wildlife Structures



Swallow box



Bat box



Brush pile



Raptor perch



Basking structure



Owl box

Take Aways

- Land matters to birds & people
- Conserved land is only as good as it is managed
- Conservation practices provide benefits to birds and farms
- Birds provide important services to farms



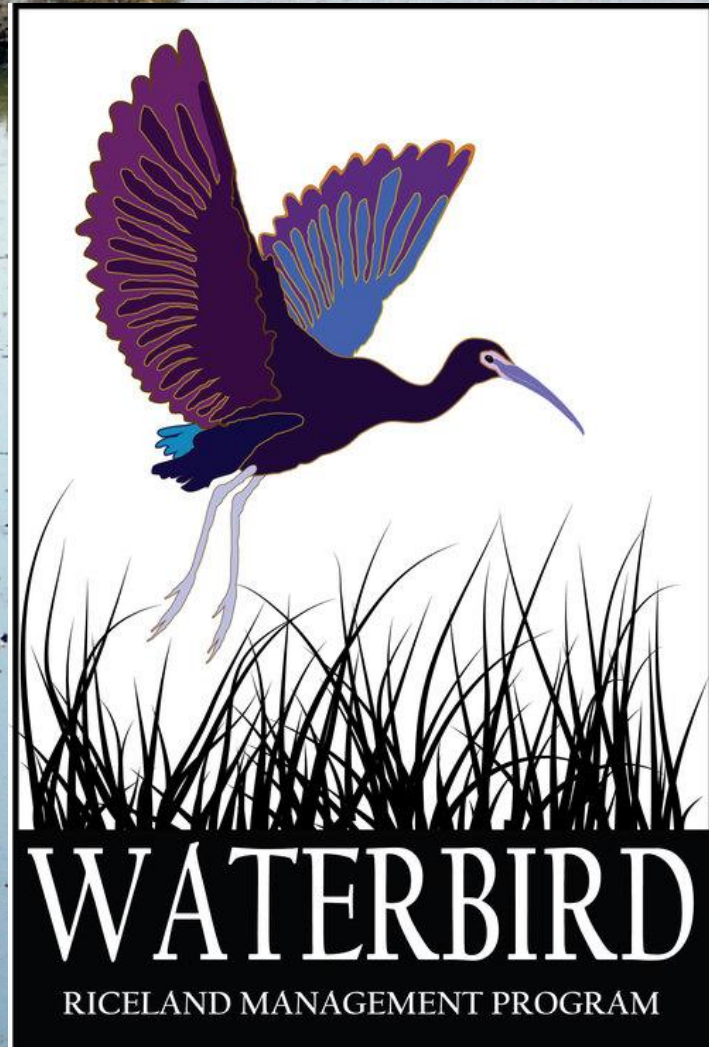
Questions?

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11/17/2021

END

Direct Marketing



Common Misconceptions

A scenic landscape with rolling green hills, a line of trees in autumn colors, and a large tree in the foreground under a clear blue sky.

- Conservancies are anti-development
- Kenyon purchases the land
- Landowner gives up property rights
- Government can take the land

4Rs