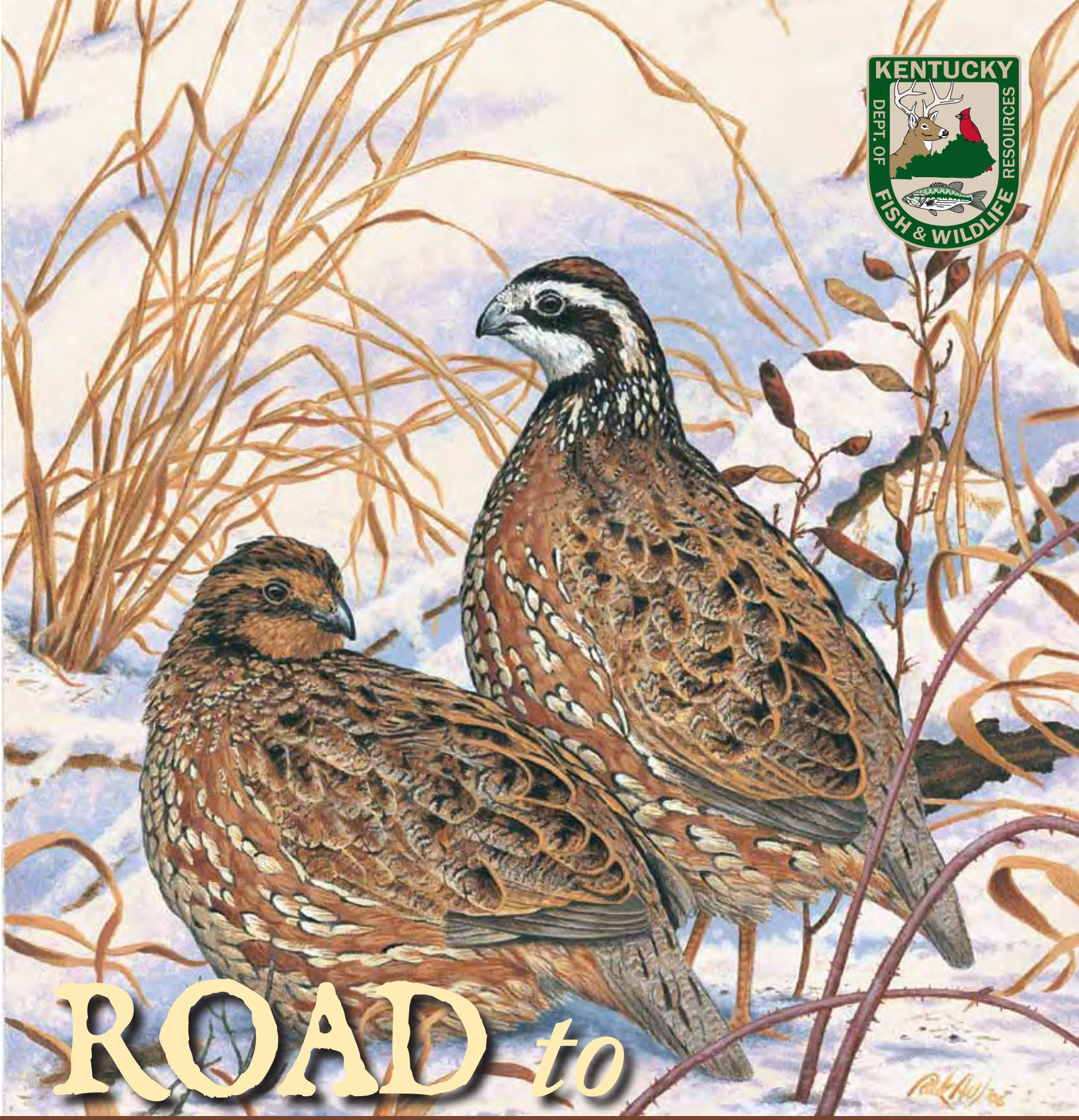

ROAD to RECOVERY

Ten Year Restoration Report

PARTNERS

Universities and joint ventures

EKU Biology

Cooperative Extension Service
University of Kentucky College of Agriculture

Appalachian Mountains Joint Venture

East Gulf Coastal Plain Joint Venture

Central Hardwoods Joint Venture
partnerships for conservation

Center For Native Grasslands Management

UTIA Institute of Agriculture
The University of Tennessee

University of Georgia

Mississippi State University

Government agencies

U.S. Fish & Wildlife Service

Forest Service
U.S. Department of Agriculture

National Park Service

Kentucky Division of Forestry

Army National Guard

Fort Campbell Air Water Soil Environmental

Blue Grass Army Depot
Pioneer in Quality

Kentucky Transportation Cabinet

Kentucky State Nature Preserves Commission

Soil Conservation Districts of Kentucky
The Soil is in our Hands

USDA

Non-government organizations

American Bird Conservancy

East Kentucky Power Cooperative
A Touchstone Energy® Cooperative

Doris Duke Charitable Foundation

FFA
Kentucky Association FFA

Kentucky Fish and Wildlife Foundation

Kentucky Ornithological Society
KOS

The League of Kentucky Sportsmen, Inc.

NBCI
National Bobwhite Conservation Initiative

National Bobwhite Technical Committee

National Wild Turkey Federation

The Nature Conservancy
Protecting nature. Preserving life.™

Quail Forever

QUGA
Quail & Upland Game Alliance

Quail Forever
Upland Wildlife Federation

Kentucky 4BOB

Quality Deer Management Association

Rocky Mountain Elk Foundation

Shaker Village of Pleasant Hill

Sierra Club
Founded 1892

Vegetation Management Association of Kentucky

The Wildlife Society

ROAD *to* RECOVERY

Ten Year Restoration Report

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Shane Wellendorf photo

ROAD TO RECOVERY:
A Marathon Not a Sprint

KENTUCKY QUAIL PROJECT

We started out of the gate strong with an unbelievable 5-year run, but the next 5 years have been tough.

A DECADE HAS come and gone and the road to bobwhite restoration remains long and arduous. Many strides have been made, but our resolve has been tested. We've yet to identify the thread that will keep the habitat mission fresh and vibrant within the Commonwealth. We had hoped the overwhelming success of the 5-year benchmark report would keep the drive alive. Yet, it just wasn't enough to maintain the Department's and the public's focus on what is a marathon, not a sprint.

The marathon analogy is perfectly suited for bobwhite restoration. Replacing miles with years seems to fit just about right. We need twenty-six years of work to expect a finish. The Road to Recovery does not have us halfway there. We started out of the gate strong with an unbelievable 5-year run, but the next 5 years have been tough. We have yet to hit our stride, and we need to push through the stitch in our side.

The plight of KY's bobwhite restoration run is far from unique. Many fellow states have shared our fate, some more than once! Virginia, Georgia, North Carolina, and Missouri, among others, have generated substantial bobwhite initiatives that followed similar courses. A 5-year commitment appears to be about the norm for well-funded and enthusiastic efforts. Changes in leadership, exciting new initiatives, and other relevant resource needs challenge the bobwhite investment over the long run.

In KY, we saw important new work towards ruffed grouse and waterfowl rise to prominence. These were necessary and important to resource management in the Commonwealth. Deer, turkey, and elk have maintained their standing as our paying customers' primary concentration making long-term investment in bobwhite difficult to maintain. Financial uncertainty and budget shortfalls within the Department made bobwhite work challenging as regular habitat management is expensive and labor intensive.

Some may look upon our effort as failure, but that would be far from the truth. We have learned, we have proven, and we have broken new ground on many fronts. We completed the largest bobwhite research project in the history of the Mid-South on Peabody WMA. The information we learned is still used to manage the area today. The majority of our focus areas have more bobwhite now than when we started, and we've demonstrated we can maintain those elevated bird densities. We proved habitat matters and what a dedicated state employee can do when given the tools and support to get the job done. We broke out of our comfort zone to chart new courses and worked to make bobwhite visible to the masses. A Facebook page, wrapped tailgates and trucks, KY Quail Project brand, and other communication efforts became a foundational key to success. We helped create a vibrant Prescribed Fire Council and lead the way on creating legislation for a Certified Burn Boss Program. The bobwhite effort left indelible marks on the Commonwealth.

Equally important are what lessons we learned along the way. The key to progress hinges on a critical review of our past to build a better future. After 10 years, we learned and reinforced some valuable lessons. The following are important themes from the bobwhite effort:

1. ***A good plan matters*** – We spent nearly a year developing the Road to Recovery. We included the entirety of the field staff in its creation. The plan did not collect dust. We reviewed the plan each January – noting accomplishments and planning for the next year. It was our guide, but not our anchor. We deviated from it when opportunities presented themselves; the way it should work.
2. ***People are the key*** – Building a good ecological plan is a logical place to start. But, building a plan accounting for the passion and talents of the implementation team was paramount. In our case, we valued personnel over ecology. The successful sites always had the best people, but didn't always have the best ecological circumstance. Never underestimate the power of people to succeed.
3. ***Investing through the program*** – Creating trust and camaraderie among the field and statewide program staff was a critical component of the effort. The financing of the restoration through the Small Game Program budget was instrumental towards building the foundation of close working relationships with the field staff. Funding field projects directly through their respective regions would have hindered our team's formation.
4. ***Power of politics*** – Our work began with

In Memorium

Dale Franklin
Commission Chairman

Impassioned support and leadership toward bobwhite conservation

8/17/43 – 4/30/2017

Novel ideas, bold initiatives, and constant pushing for change are required to win the bobwhite marathon.

Commission Chairman, Dale Franklin, beating the drum for bobwhite on a nearly daily basis with Department leadership. His passion fueled the charge and kept bobwhite relevant to the Commission, agency leadership, and subsequently, the staff. Upon his departure, the drum beat faded, and the momentum for the effort waned. We needed a broader political base.

5. ***Maintaining discomfort*** – Conducting business as usual cannot hope to accomplish the daunting task of restoring bobwhite. Decades of traditional efforts have yielded ever declining bird numbers. Novel ideas, bold initiatives, and constant pushing for change are required to win the bobwhite marathon. No marathon winner ever felt "comfortable".
6. ***Accountability generates productivity*** – Great achievements are rarely, if ever, accomplished without goals and expectations. We chose to hold ourselves accountable to the plan from the beginning. The benchmark report and this final report were part of that process. Annual reviews and public meetings furthered our commitment. Our reports are founded in an honest, critical assessment of successes and failures – the good, the bad, and the ugly.
7. ***Making "no" a "yes"*** – Government, by nature, is riddled with hurdles. They are often in-place to protect from corruption and maintain the public trust. Persistence is key to overcoming those obstacles when forging new paths. When the "no" roadblock was realized, we found a way to repackage and found a way to "yes". Some might call this being stubborn, but this is the way to progress as long as a public benefit is the driving motivation.
8. ***Selling the story*** – We began with the adage of "tell the story" of bobwhite's plight and its impact on communities of people. It became apparent that wasn't quite enough. To change how people use and view the land, "telling the story" simply won't get the job done. The story needs told in a way that motivates and inspires action. It needs to push emotional buttons that hit home with the audience. That's a lot more than just "telling the story," we must now sell the story.
9. ***Celebrating team achievement*** – Government is not well-designed to reward superior achievement. We worked hard to make sure personnel were recognized for outstanding management. Without a strong field team, progress made to restore bobwhite would not have been possible. Giving recognition when it's due is of utmost importance. On the flipside, blanket recognition when it's not due can be counterproductive, so we made sure to highlight the individuals who got the job done.
10. ***Partnerships in moderation*** – We reached out to a breadth of potential partners as we finalized the plan. All totaled, we exceeded 30 of them. We built fantastic working relationships with several, but we had no ability to work with all of them. Partnerships are based on trust and personal relationships. Quality is more important than quantity, hence less is actually more. It is essential to carefully select the best partners to collaborate among, so you can maximize the collective value from your mutually limited time.

Perhaps the most formidable lesson: maintaining momentum for the marathon. The bobwhite's plight took decades to construct. Slowly eroding habitat continually chipped away at the annual needs of bobwhite, creating this challenge. Cleaner agriculture and the desire for a manicured landscape shaped a culture of land management we simply must change. Society continues to be further disconnected from the land and its understanding of "habitat" has become more distant and abstract.

We continually strived to keep the initiative prominent and vibrant. New projects on Perryville Battlefield, two fully wrapped trucks, and new research opportunities on Bluegrass Army Depot were substantial new projects in the second half of the effort. We also spent a substantial amount of time and effort towards the formation of a KY Bobwhite and Grassland Foundation. The financial and political realities of the project revealed the absolute necessity for this type of group. Ultimately, we were never able to identify the person(s) who could be the catalyst for such an opportunity. We considered the lack of a foundation as the most impactful failure of our 10-year effort, because it could have strengthened our political base.

At times, we stumbled along the way, slowing our progress. The Perryville Battlefield Project had the potential to be a nationally significant story, but our partnership was forced to part ways. We worked to build a "Wildlife-Certified" brand linked to the KY Proud campaign

(locally made brand) under our Department of Agriculture, but the support just wasn't quite there. Efforts were underway to establish a "Farm Wild" program (a wildlife-friendly demonstration farm) at the Eastern Kentucky University Meadowbrook Farm, but the Farm Manager moved on to a new opportunity. Continued changes in leadership within the Division and Agency stalled momentum with each transition. Marathons are hard and the second 5-year period demonstrated that fact, but do we need to chart a new course to make the finish line?

Given our experience, we simply must chart a new course. This report is the first step. Did we do what we set out to do? Where did we come up short and why? Can bobwhite shoulder the burden of changing the landscape? This report will answer some of those questions, but whether bobwhite can be the icon for change requires much more work, deep thinking, and likely human dimensions research. Society is changing and we must change with it. Our relevance is at stake; the future of the bobwhite is at stake. Are we capable of reaching the finish? This is a pivotal moment. History will ultimately answer the question.

KENTUCKY'S TOP 20 BOBWHITE RESTORATION ACCOMPLISHMENTS

1. Proved bobwhite restoration is accomplished through habitat development.
2. Led the way toward passing Certified Burn Boss legislation in KY.
3. Became recognized as a national leader in bobwhite restoration.
4. Published over 20 peer reviewed articles advancing bobwhite science.
5. Supported regionally enhanced bobwhite populations through Green River CREP.
6. Coordinated a Private Lands Special Issue in The Wildlife Society Bulletin and a national private lands symposium.
7. Assisted in the establishment of the KY Prescribed Fire Council.
8. Partnered to create a KY Bobwhite Specialty License Plate.
9. Participating in regionally significant grazing and bobwhite research on Bluegrass Army Depot.
10. Created a marquee bobwhite exhibit with an aviary at the Salato Wildlife Education Center.
11. Established the first National Bobwhite Conservation Initiative Focus Area in Livingston County.
12. Created a bobwhite Facebook community of nearly 4,000 people.
13. Hosted the first National Bobwhite Leadership Workshop.
14. Wrapped 70 tailgates and 2 trucks to support bobwhite restoration.
15. Helped convert 1,000 acres at Shaker Village of Pleasant Hill, a National Historic Landmark, making it a premier grassland restoration success story.
16. Served as the building grounds for the National Bobwhite Conservation Initiative's Coordinated Implementation Program.
17. Produced a popularized research summary for bobwhite enthusiasts regarding the Peabody Bobwhite Research Project.
18. Transformed Clay WMA into one of the state's premiere public wildlife areas.
19. Orchestrated the conversion of 700 acres to native prairie on Perryville Battlefield.
20. Produced a 5-year benchmark report to share progress and help build accountability for the effort.

KENTUCKY NORTHERN BOBWHITE CONSERVATION INITIATIVE

HOW DID WE DO?

In the 2008 plan, each Goal's challenges included a list of strategies for success. In this final report, gauges illustrate how many of those strategies have been employed in the past 10 years. This example shows that 12 of 12 strategies were implemented, indicating a challenge that was fully completed.

CHALLENGE 1
FINAL SCORE
12/12 = 100%

Technical Quail Plan Goals
(from 2008)

GOAL 1:
Stabilize bobwhite populations statewide

GOAL 2:
Increase bobwhite populations in private lands focus areas

GOAL 3:
Increase bobwhite populations in public lands focus areas

GOAL 4:
Increase statewide recreation related to bobwhite

GOAL 5:
Generate funding mechanisms to support bobwhite restoration

GOAL 1

Stabilize bobwhite populations statewide

CHALLENGE 1:

Enhance row crop operations

Row crop production has become cleaner and larger scaled over the last several decades. Waste grains have also been minimized through more efficient machinery. Fallow fielding has been abandoned and many fields are double cropped. Farm Bill conservation practices can improve the row crop system.

STRATEGIES:

✔1. Create a flex-fallow program through EQIP or CSP.
✔2. Create quail bundles of practices in EQIP and WHIP.
3. Maximize CSP enhancement payments for bobwhite habitat.
✔4. Promote CP-33 in high priority counties.
5. Adjust planting rates and mixes for Farm Bill practices to benefit quail including grassed waterways, riparian buffers, and filter strips.
✔6. Promote edge feathering and fencerow rejuvenation through WHIP and EQIP.
7. Hire a Farm Bill coordinator that can fully address shortfalls and needs in Farm Bill programs.
✔8. Ensure CRP mid-contract management practices are implemented and provide support for that process.
9. Promote contour conservation buffers in high priority counties.
✔10. Create a quail friendly CP-38 including whole field and buffer practices.
11. Establish a program to purchase standing crops located against field buffers.
✔12. Promote CREP sign-up, support cover establishment, and facilitate mid-contract management.

All strategies should be employed in 10 years.

CHALLENGE 1 FINAL SCORE
7/12 = 58%

CHALLENGE 2:

Augment mine reclamation projects

Reclaimed coal mine lands provide a non-traditional opportunity for quail habitat. Current mine reclamation practices could be improved through seed mixes, shrub plantings, and habitat design.

STRATEGIES:

1. Amend regulatory language to be more quail-friendly.
✔2. Promote fish and wildlife and grazing post-mine land uses when not following RAM 124.
✔3. Provide technical assistance to mine companies that desire wildlife-oriented reclamation.
4. Recognize companies that reclaim ground in a wildlife-friendly manner through the media and local community.
✔5. Investigate methods to lower seed costs associated with native plant mixes.
✔6. Educate inspectors on the attributes of quail habitat on reclaimed mine lands.
✔7. Enhance bond released sites for quail habitat.
8. Work with the Appalachian Mountain Joint Venture to maximize benefits and resources.
9. Hire a biologist to actively support mine reclamation.

In 10 years, enhance 10,000 acres of mine reclamation projects for early successional wildlife, and renovate 10,000 acres of bond released lands for early successional wildlife.

CHALLENGE 2 FINAL SCORE
5/9 = 56%

Acres: Pre-bond - 550; Post-bond - 5,818

CHALLENGE 3:

Revolutionize grazing operations

Livestock owners across the Commonwealth almost exclusively rely on fescue as forage. Cattle rotations are minimal and forage production is rarely maximized. Farm Bill conservation practices can be used to change Kentucky's grazing system.

STRATEGIES:

✔1. Research the history of no-till agriculture and employ the same strategies to change Kentucky's pasture system.
✔2. Proactively work with the University of Kentucky Cooperative Extension to endorse native forages.
✔3. Use EQIP as a funding tool to convert 25% of pasture systems to native forages.
✔4. Target native grasses in haylands as the first-step towards changing the perception of native forages.
5. Use EQIP to fund deferment acres for wildlife habitat.
6. Support GRP as important Farm Bill program worthy of funding.
✔7. Use EQIP to offset hay costs as native forages establish.
✔8. Use HIP as an incentive to establish native forage haylands.
9. Establish field borders on pasture/haylands through Continuous CRP.
✔10. Promote edge feathering and fencerow rejuvenation through WHIP and EQIP.
11. Establish rental payments for pasture/haylands that are converted to native grasses for forage.
✔12. Promote CREP sign-up, support cover establishment, and facilitate mid-contract management.

Employ 8 strategies in 10 years.

CHALLENGE 3 FINAL SCORE
8/8 = 100%

CHALLENGE 4:

Spawn participation in cost-share programs, particularly those designed for quail

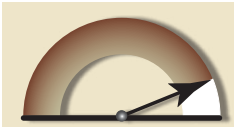
There are more opportunities to fund quail habitat than any time in history. Landowners are not fully taking advantage of federal and state programs. Therefore, they must be informed and educated on the economic and environmental benefits of government programs.

STRATEGIES:

1. Adjust CP-33 rental payments to 120%

of the soil rental rate to be equitable with other continuous practices.
✔2. Locate a KDFWR private lands or Farm Bill biologist in high priority USDA county offices.
✔3. Use HIP dollars to fund gaps or provide incentives for Farm Bill programs.
✔4. Use HIP dollars to get landowners comfortable with cost-share programs through the government to encourage future enrollment in larger programs.
✔5. Hire more private lands staff through NGO partnerships.
✔6. Monitor county soil rental rates to ensure they are competitive.
✔7. Improve communication between Farm Bill and private lands biologists.
✔8. Conduct field days or training session for NRCS and FSA staff regarding the importance of early successional habitat management.

All strategies should be employed in 10 years.



CHALLENGE 4 FINAL SCORE
7/8 = 88%

CHALLENGE 5:

Amplify prescribed burning across the landscape

Fire was once a driving ecological force in Kentucky. Native Americans readily used fire to clear land for hunting and agriculture. Prescribed fire is one of the most beneficial management tools available, yet it is not a prominent management practice.

STRATEGIES:

✔1. Critically evaluate the use of prescribed burning in Kentucky.
✔2. Establish habitat teams to assist with prescribed burning.
✔3. Host a roundtable meeting to initiate a State Fire Council.
✔4. Encourage prescribed fire on other state-owned lands.
✔5. Maintain the presence of prescribed fire on private lands until its use becomes more widely accepted.
✔6. Create right-to-burn legislation that includes liability protection.
✔7. Evaluate the patch-burn grazing potential in Kentucky.
✔8. Become familiar and actively engaged in the air quality regulatory process.

All strategies should be employed in 10 years.

CHALLENGE 5 FINAL SCORE
8/8 = 100%

CHALLENGE 6:

Establish Kentucky-based quail research

Although bobwhite quail have been extensively studied, little research has occurred pertaining to the Kentucky landscape. Moderate to small farms, recreational farms, and reclaimed mine lands create a dynamic and unique landscape. There is much to learn about quail in Kentucky.

STRATEGIES:

✔1. Conduct genetic analyses to measure genetic diversity and identify presence/absence of meta-populations.
✔2. Create multi-year research project on Peabody Wildlife Management Area to identify habitat use, hunting effects, productivity, and hunter coverage of the area.
✔3. Participate in a multi-state research project on bobwhite modeled after the Appalachian Cooperative Grouse Research Project.
✔4. Research management practices on east Kentucky reclaimed coal mine lands including fertilizer experiments and forb and shrub establishment.
✔5. Evaluate population response to private lands focus area considering landscape metrics.

Employ 3 strategies in 10 years.

CHALLENGE 6 FINAL SCORE
5/3 = 167%

CHALLENGE 7:

Generate public interest and awareness about bobwhite

The majority of the public is not aware of the severity of the quail decline. Nor, do they understand the reasons driving the decline, the basic habitat requirements of the gamebird, or management practices needed to restore them.

STRATEGIES:

1. Create a campaign to end "recreational mowing" across the state.
2. Step-up marketing efforts aimed at quail restoration.
✔2.1 Install tailgate "billboards" on Department trucks.
✔2.2 Write magazine articles in targeted wildlife and farm publications.
✔2.3 Enhance Wildlife Division newsletter.
✔2.4 Promote Habitat Improvement Program promotions through baseball hats, t-shirts, and decals using new logo.
✔2.5 Produce bobwhite 5" x 6" magnets.
✔2.6 Print bobwhite art by Rick Hill.
✔2.7 Create quail specialty license plate.
✔2.8 Generate awareness through "Kentucky Afield" television program.
✔2.9 Enhance Department website.
✔2.10 Utilize the Department's Salato Wildlife Education Center.
✔2.11 Utilize CEPLs to deliver bobwhite programs into high school FFA and 4-H programs.
2.12 Ensure that habitat teams are highly visible.
2.13 Include bobwhite information/brochure through seed program.
✔2.14 Create regional displays that can be used as educational tools.
✔2.15 Maintain Department booths at large events: Kentucky State Fair, National Farm Machinery Show.
2.16 Create lobbying card.
2.17 Target national media outlets.
✔2.18 Incorporate quail education in CEPL program.
✔3. Establish a brochure that outlines the quail decline and need for recovery.
4. Expand the "Habitat How-To" series to include a bobwhite "How-To".
✔5. Produce DVD emphasizing quail management approaches.
6. Prioritize distribution of QU food plot seed at spring field days.
7. Create an online course and exam focusing on quail management practices. Completion required to receive QU food plot seed.
✔8. Erect signage on WMAs and highly visible private properties to demonstrate quail habitat.
✔9. Continue to work cooperatively with

other agencies and organizations hosting agriculturally-driven field days.
✔10. Work with FFA on an "Adopt a Farm for Wildlife" program.
✔11. Establish a short-course that focuses on early successional habitat management and hands-on training for landowners.

Employ a minimum of 20 strategies in 10 years.

CHALLENGE 7 FINAL SCORE
20/20 = 100%

CHALLENGE 8:

Supply landowners the equipment to establish and manage quail habitat

Many landowners across Kentucky own land, but lack the farm equipment or specialized tools needed to create and manage quail habitat.

STRATEGIES:

✔1. Evaluate landowner need and increase loaner equipment base to meet that need through HIP.
✔2. Expand the habitat team concept.
✔3. Promote a private industry to meet the management needs of landowners.
✔4. Promote landowner cooperatives enabling neighbors to pool equipment resources.
5. Re-establish Division of Conservation equipment program designed to rent equipment to landowners.

Employ 4 strategies within 10 years.

CHALLENGE 8 FINAL SCORE
4/4 = 100%

CHALLENGE 9:

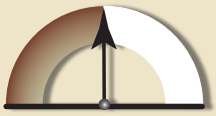
Involve non-hunting groups and the public

Quail management and restoration is obviously focused on the quail-specific user groups that are often comprised of the hunting public. However, targeting non-hunting user groups who share an interest in songbirds and other wildlife can be an effective approach.

STRATEGIES:

1. Reach out to groups that have similar interests in habitat conservation like Audubon and the Sierra Club.
✔2. Highlight multi-species benefits of quail management efforts using WMA demonstration signage.
✔3. Write articles in media that non-hunting users frequent.
✔4. Locate Watchable Wildlife sites where quail habitat is actively managed.
✔5. Present quail restoration at local meetings of non-consumptive groups and highlight benefits to other wildlife and the environment.
6. Encourage non-hunting conservation groups to generate funds through banquet systems.
7. Persuade non-hunting individuals with an interest in wildlife and fisheries conservation to purchase a hunting and fishing license.
8. Educate landowners that hunt without a license on their land to purchase a hunting license to support fish and wildlife conservation.

Employ all strategies within 5 years.



CHALLENGE 9 FINAL SCORE
4/8 = 50%

CHALLENGE 10:

Provide additional training for staff

Many Department employees are unfamiliar with quail habitat and the strategies to restore it. With so few staff to cover the state, it's imperative that all field staff can communicate the basic message.

STRATEGIES:

✔1. Conduct training on WMAs to educate staff on quail habitat and restoration goals.
✔2. Train private lands and farm bill biologists to become better communicators and sales people.
✔3. Train private lands and farm bill biologists to become more familiar with the agricultural business and the values of producers.
✔4. Use the Wildlife Division Tidbits and Commissioner's Newsletter to keep staff current on progress of restoration efforts.
✔5. Create an annual quail and habitat-based summary of new research abstracts.
✔6. Encourage wildlife staff to be involved in regional workshops and meetings to advance their knowledge base and gain new ideas from peers.
✔7. Ensure field staff are stocked with information materials designed for public information related to quail restoration (i.e., brochures, lobby card).

Employ all strategies within 3 years.

CHALLENGE 10 FINAL SCORE
7/7 = 100%

CHALLENGE 11:

Build relationships with partners

The crux of quail restoration will be founded on partnerships. Existing partnerships with non-government organizations (NGO) and fellow agencies must be enhanced. Personal relationships will be the key to landscape level change, so countless new partnerships must be forged to meet the objective.

STRATEGIES:

✔1. Create NGO partner cooperative positions.
✔2. Create NGO partner projects.
✔3. Build a technical plan endorsement list including NGOs, government agencies, and businesses.
✔4. Identify local champions and network in a manner similar to the Hunter Education framework.
✔5. Engage large (500+ acres) public and private landowners (individuals and businesses) for quail restoration management activities and recognize their achievements.
✔6. Identify agricultural, landowner, and conservation-based organizations and establish common interest to forge formal partnerships.
✔7. Establish a distribution list of partners and facilitate regular communication through email, newsletters, and other media.
✔8. Host a Governor's hunt with KDFWR executives.
✔9. Work with Joint Ventures for coordinated efforts across state lines.

Employ all strategies over a 10 year period; generating 25 partner agencies and organizations.

CHALLENGE 11 FINAL SCORE
9/9 = 100%

CHALLENGE 12:

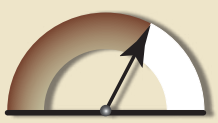
Design or plan developments in an environmentally-sensitive manner

In many circumstances, for every acre of quail habitat restored, an acre is destroyed. Easements, development plans, and public rights-of-ways are essential components to protect the future of bobwhite. To stabilize the statewide population, development must be carefully planned and critical habitats must be protected.

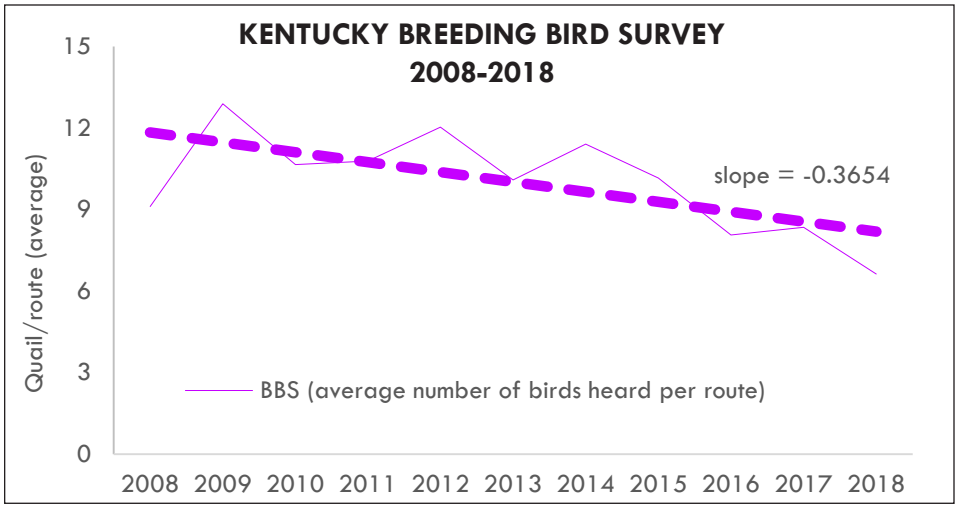
STRATEGIES:

1. Establish a state-funded conservation easement program.
2. Promote Farm Bill easement programs around west Kentucky urban areas such as Bowling Green, Paducah, and Owensboro.
3. Work with city and county planners to minimize the continual division of agricultural properties that provide environmental services, wildlife, and aesthetics.
4. ✔ Continue to encourage the Promoting Our Wildlife and Energy Resources program for enhanced transmission lines for electricity and gas.
5. ✔ Work with the Department of Transportation to reform the management of highway rights-of-way through restoration of native plants. Consider approaching the Adopt-A-Highway program as a mechanism to install the restoration.
6. Identify critical corridors across the state.

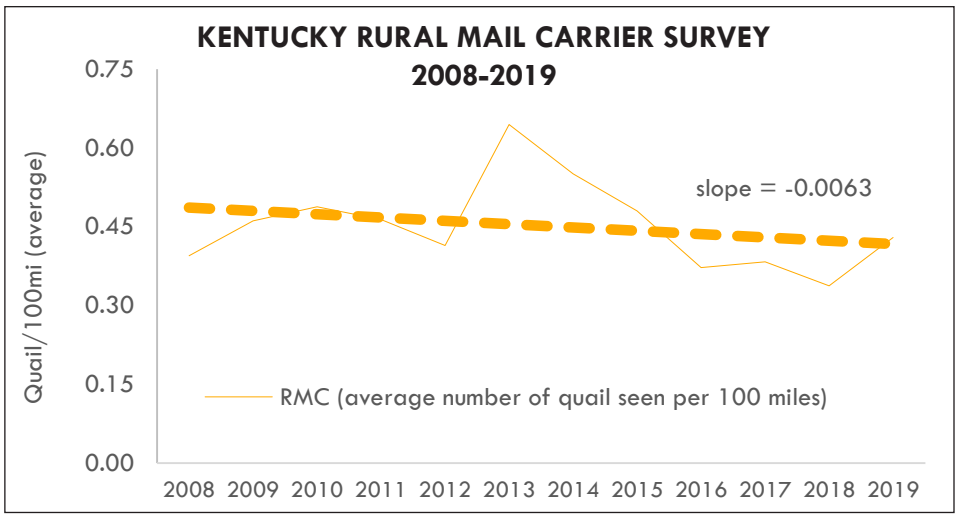
Employ 3 strategies over 10 years.



CHALLENGE 12 FINAL SCORE
2/3 = 66%



The Breeding Bird Survey (BBS) is a long-term, large-scale, international avian monitoring program initiated in 1966 to track the status and trends of North American bird populations. The BBS in Kentucky reveals a 33% decline in the bobwhite population from 2008 to 2018.



The Rural Mail Carrier Survey (RMC) is used to monitor quail populations across the state. Mail carriers record rabbit and quail observations as they travel their rural delivery routes during the last full week of July. The RMC reveals a 16% decline in the bobwhite population from 2008 to 2019.

GOAL 1 OVERALL ASSESSMENT:

Despite implementing the majority of strategies in the plan, the statewide bobwhite population trend continues to decline according to the Rural Mail Carrier and Breeding Bird Surveys (see figures above). We were unable to stabilize the population, because the extent of our actions were not of consequence. To transform the landscape through even marginal habitat improvements will require extensive changes in land use such as the widespread reduction in recreational mowing, utilization of native grass as forage and hay, or field borders along crop fields.

GOAL 2

Increase bobwhite populations in private lands focus areas

David Peters photo

CHALLENGE 1:

Adequately support focus areas

For a successful focused approach, funding and manpower must be secured. A focus area will not be established until a dedicated biologist and habitat team is in place. A formal public ceremony will take place at the start of each focus area.

STRATEGIES:

✔1. Prioritize focus areas to fund as money becomes available.
- 1.1 Livingston County
- 1.2 Hart County
- ~~1.3 Sinking Creek (Breckinridge Co.)~~
- 1.3 Shaker Village

✔2. Hire biologist positions to digitize focus area and write management plan.

3. Commission local farmer figure to promote quail restoration in focus areas.

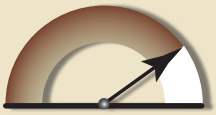
✔4. Create habitat teams in focus areas to accomplish management goals.

5. Focus state and federal cost-share programs.
- ✔5.1 Use HIP dollars to alleviate 25% landowner contribution for WHIP in focus areas.
- ✔5.2 Promote CP-33 and consider bonus payments.
- ✔5.3 Generate additional points in WHIP and EQIP ranking tools for focus areas.
- 5.4 Promote CP-21 and 29 in focus areas.
- ✔5.5 Encourage participation in General CRP.
- ✔5.6 Utilize programs like USFWS Partners for Fish and Wildlife, NGO, and grant funds for habitat improvement.

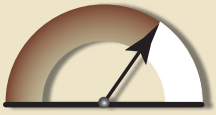
✔6. Prioritize equipment loans towards landowners in the focus areas.

Employ all strategies in 2 focus areas in 5 years. Initiate all focus areas in 8 years.

CHALLENGE 1 FINAL SCORE



Livingston: 9/11 = 82%



Shaker Village: 8/11 = 73%

Hart Co: 1/11 = 9%

CHALLENGE 2:

Generate landowner interest

Many farmers and landowners may be unaware of a focus area encompassing their property. It is important to educate the public on our focus area approach, programs, management strategies, and funding sources. Local staff should also be included and be knowledgeable on current issues.

STRATEGIES:

✔1. Host local gatherings to advertise and gain support including a free barbeque and entertainment highlighting the significance of their rural community.

✔2. Create mailings, press releases, newspaper ads, magazine articles etc.

✔3. Educate DCs and CEDs in focus area county offices.

✔4. Utilize existing field days and habitat demonstrations.

5. Target high school FFA and 4-H programs.

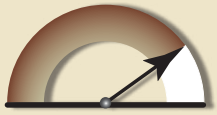
6. Establish relationship with local farm co-ops.

7. Locate Farm Bill biologist in the county office.

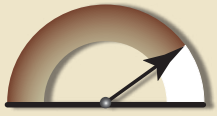
8. Include county extension staff, soil and water conservation staff, and RC&D Coordinators.

Employ 5 strategies on 2 focus areas in 5 years. Employ a minimum of 5 strategies in 10 years on remaining focus areas.

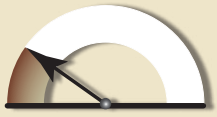
CHALLENGE 2 FINAL SCORE



Livingston: 4/5 = 80%



Shaker Village: 4/5 = 80%



Hart Co: 1/5 = 20%

CHALLENGE 3:

Lack of monitoring

Monitoring is essential to determine the level of success within a focus area. Density estimates will be needed to measure the magnitude of effect in the focal area, but indices can also be utilized for comparison with statewide trends.

STRATEGIES:

✔1. Create point counts (generating a density estimate) designed to capture all bird response.
2. Establish whistle count survey routes.
✔3. Establish fall covey count surveys to measure localized treatment effects.
✔4. Investigate feasibility of Forward Looking Infrared (FLIR) surveys.
5. Create Breeding Bird Survey routes.

Employ monitoring plan in 1 year for two focal areas. Employ monitoring plan by year 6 for remaining area.

CHALLENGE 3 FINAL SCORE

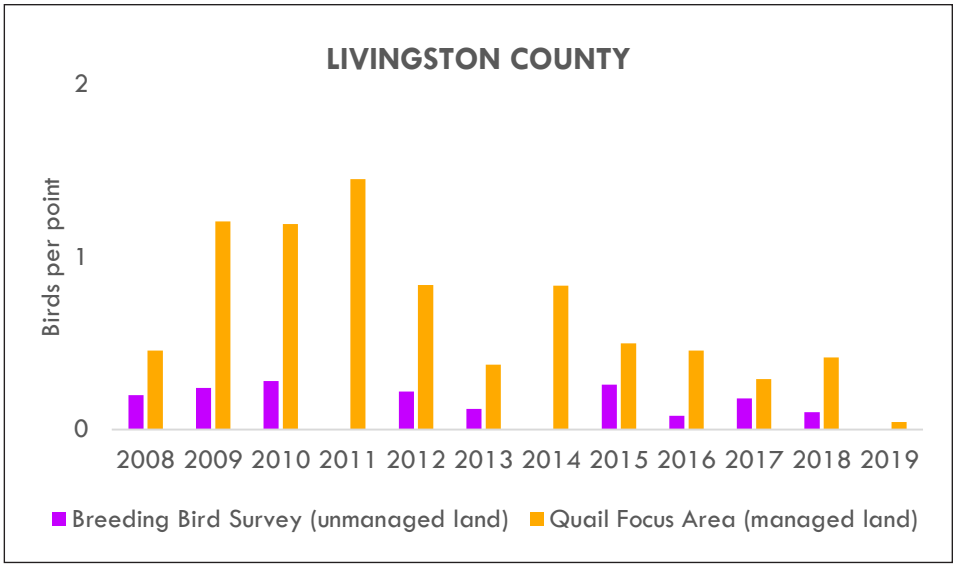
Livingston: 100%

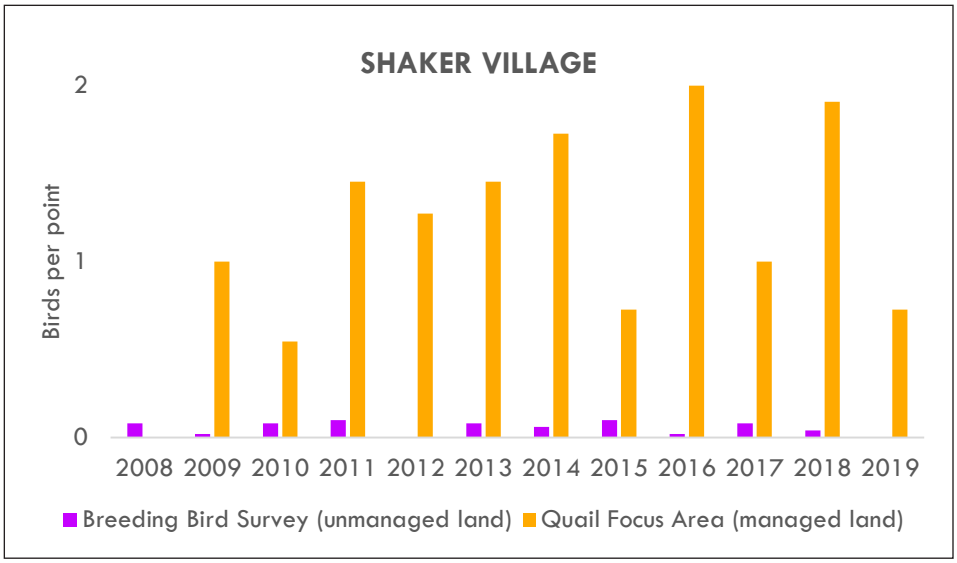
Shaker Village: 100%

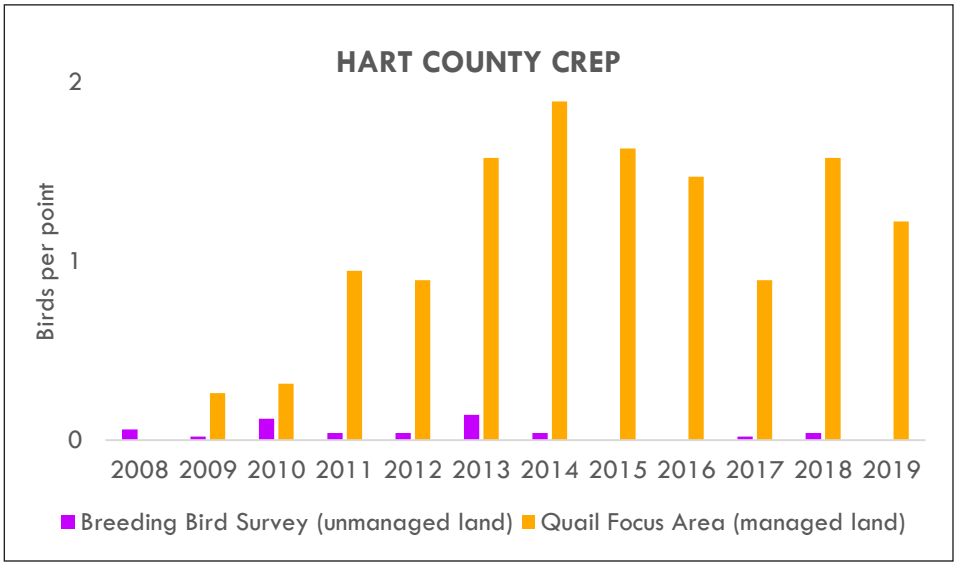
Hart Co: 100%

GOAL 2 OVERALL ASSESSMENT:

Over the 10 year period, our 3 private lands focus areas provided 30 total years of opportunity to meet the two-fold increase in bobwhite populations. We meet that objective in 11 of those years for a 37% success rate. Given variation in weather and waning management intensity over the last 5 years, we are satisfied with that success rate.







GOAL 3

Increase bobwhite populations in public lands focus areas

CHALLENGE 1:

Renovate public wildlife management areas (WMA)

Kentucky has over 1.5 million acres of public land available for hunting and wildlife-related recreation. However, many of these areas cannot sustain abundant quail populations. KDFWR can manage some WMAs specifically for early successional grassland wildlife.

STRATEGIES:

✔1. Select one focal area per region to devote time and resources toward quail management. Prioritize areas to target as resources become available.
   1.1 Peabody WMA
   ~~1.2 Perryville Battlefield~~
   ~~1.2 Straight Creek Focus Area~~
   1.3 Clay WMA
   1.4 Bluegrass Army Depot
   ~~1.5 West Kentucky WMA~~
   1.5 Rockcastle River WMA
✔2. Create quail management plan on targeted WMAs.
✔3. Increase forest management on public lands.

Create WMA management plans in 2 years. Implement plans over the following 8 years.

CHALLENGE 1 FINAL SCORE
4/4 = 100%

CHALLENGE 2:

Increase focal WMA staff

Many public lands WMAs around the state are understaffed. Existing staff do not have time to implement proper quail management on these areas.

STRATEGIES:

✔1. Evaluate current workloads to meet quail management objectives.
   1.1 Hire seasonal technicians
   1.2 Hire permanent employees
✔2. Contract projects to private entities.
✔3. Create regional or statewide public land habitat teams.

Employ a minimum of 2 strategies on 3 focal WMAs in 5 years. Employ 2 strategies on remaining WMAs in 10 years.

CHALLENGE 2 FINAL SCORE
5/5 = 100%

CHALLENGE 3:

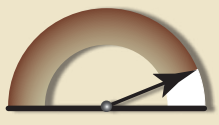
Purchase necessary equipment

Many WMAs lack the necessary equipment needed to implement quail management. Specialized equipment can increase the efficiency and effectiveness of management practices.

STRATEGIES:

✔1. Identify equipment shortcomings of focal WMAs.
✔2. Increase equipment inventory based on individual needs of focal WMAs.
✔3. Encourage renting of specialty equipment.
✔4. Contract projects to private entities.
✔5. Purchase regional or statewide equipment that rotates between WMAs.
6. Work with KDFWR Engineering Division to have access to equipment not in use.
✔7. Increase NGO or agency partnerships.

Employ all strategies within 3 years.



CHALLENGE 3 FINAL SCORE
6/7 = 86%

CHALLENGE 4:

Control hunting pressure on WMAs

Excessive hunting pressure may increase quail winter mortality and suppress populations on WMAs. Hunter numbers tend to be extremely high on public lands and habitat availability is not adequately expansive. Therefore, coveys can be decimated over the course of a season.

STRATEGIES:

✔1. Limit hunter numbers based on "first-come, first-served" approach.
✔2. Create mandatory check stations for small game.
✔3. Close or refuge portions of WMAs.
✔4. Limit areas to quota hunts.
✔5. Close hunting on public areas at 2:00 PM.
✔6. Shorten seasons on public lands.
✔7. Increase law enforcement presence on targeted WMAs.
✔8. Evaluate effectiveness and social acceptance of control measures.

Employ a unique hunting framework on each focal WMA within 3 years. Summarize social and biological impacts to controlled hunting in 5 years.

CHALLENGE 4 FINAL SCORE
4/4 = 100%

CHALLENGE 5:

Enhance habitat on surrounding private property

Quail population management can require thousands of acres. Minimum viable populations (MVP) are believed to be sustained by a minimum of 5,000 acres of suitable habitat. West Kentucky and Clay WMAs are marginal in size with respect to the MVP. Targeting private lands surrounding the WMAs will provide significantly more acres to support a population.

STRATEGIES:

✔1. Establish a buffer around the WMA based on an estimate of quail home range size or average dispersal distance.
✔2. Create a landowner list through the county PVA office.

✔3. Private or public lands staff proactively target landowners on the list for technical guidance.
✔4. Public lands staff provide direct habitat management support on these areas for specialized practices (i.e., prescribed burning, fencerow rejuvenation, native grass establishment).
✔5. Focus Farm Bill programs in the area through advertisement, higher points in the ranking process, and conservation priority area status.

Employ all strategies within 3 years.

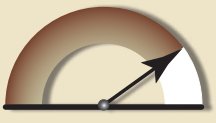
CHALLENGE 5 FINAL SCORE
5/5 = 100%

CHALLENGE 6:

Lack of monitoring

**See focus area monitoring under Goal 2.*

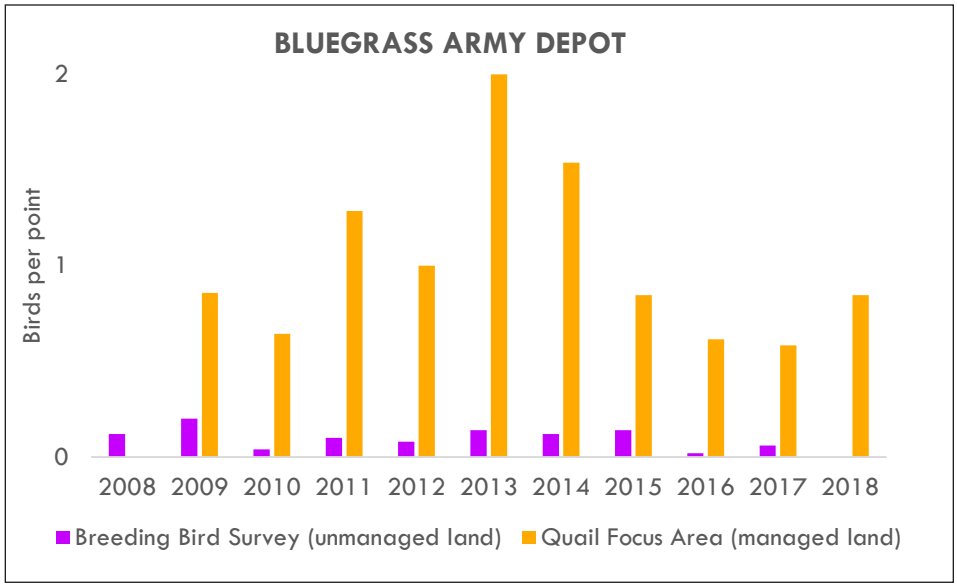
Employ monitoring plan on all focal WMAs in 1 year.

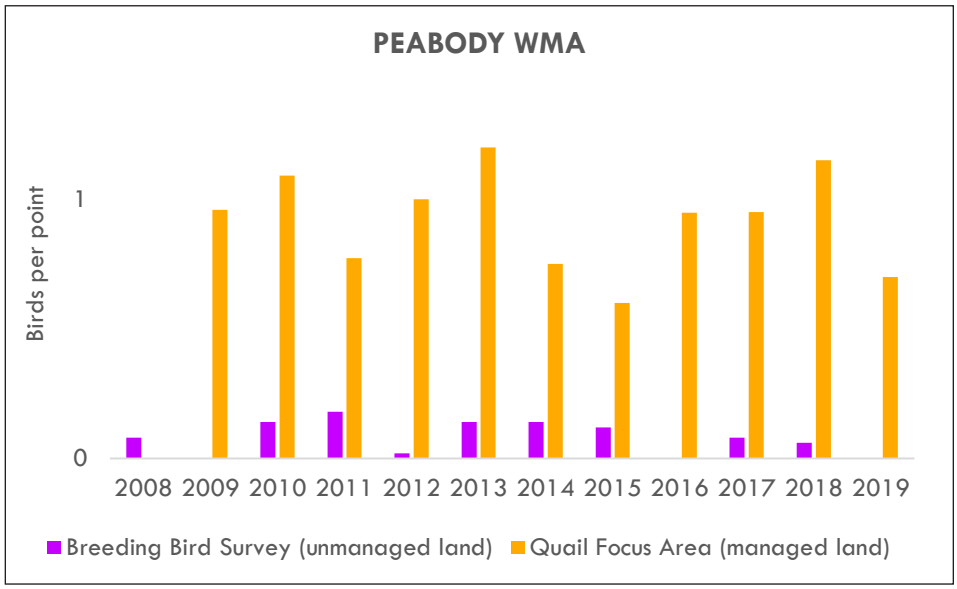


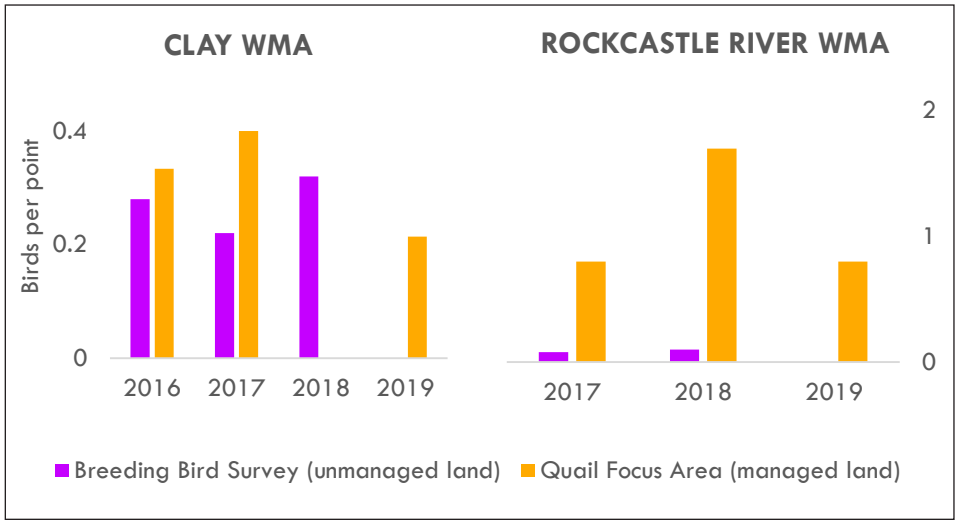
CHALLENGE 6 FINAL SCORE
4/5 = 80%

GOAL 3 OVERALL ASSESSMENT:

Over the 10 year period, our 4 WMA focus areas provided 23 years of opportunity to meet the two-fold increase in bobwhite populations. We did not meet that objective in any of those years. However, we met at least a 40% increase over a quarter of the total years. Clay WMA likely met the two-fold increase, but we lacked critical baseline population data in the first 5 years. With existing habitat in place on WMAs at the start, two-fold increases were a lofty bar, but we remain disappointed not meeting the standard on these areas.







GOAL 4

Increase statewide recreation related to bobwhite

Ben Robinson photo

CHALLENGE 1:

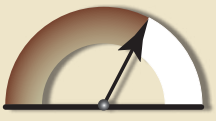
Provide positive hunting experiences

As fewer sportsmen and women participate in quail hunting, the need arises for positive hunting experiences. The objective will be to renew interest in veteran bird hunters and recruit new participants in quail hunting.

STRATEGIES:

✔1. Secure more public land containing suitable quail habitat to increase hunting opportunities.
2. Establish a quail youth season prior to the regular quail season.
✔3. Host WMA youth or mentor hunts as a recruitment tool.
4. Mirror the dove field lease program for mentor or youth quail hunts. More sites would be needed because hunts should be limited to a single party of 4 with no more than 3 hunts/farm.
✔5. Host celebrity quail hunts featuring country music artists, NASCAR drivers, and other prominent figures.
✔6. Create quota hunts on select WMAs.

Employ all strategies within 5 years.



CHALLENGE 1 FINAL SCORE
4/6 = 66%

CHALLENGE 2:

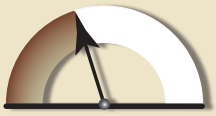
Renew aesthetic interest in quail

People are losing interest in quail, because they are not as prominent in the landscape. We must revitalize the image of the bobwhite and generate broad-based interest.

STRATEGIES:

✔1. Create quail festival(s) including activities such as quail calling contests.
2. Designate a city as the "Quail Capital of Kentucky".
3. Design a landowner cooperator quail whistle count survey to get landowners more connected to quail and management on their land.
4. Encourage the Governor to create "bobwhite week" and host festivities at Salato Center.
✔5. Incorporate working quail dogs into conservation camps.

Employ all strategies within 5 years.



CHALLENGE 2 FINAL SCORE
2/5 = 40%

Deposit ONE hang tag per PARTY

CHECK IN *Hang in vehicle.*			
Circle what you are hunting: Rabbit Quail Grouse Woodcock Running dogs *(not hunting)*			
Party Leader Name:			
Leader Phone or Email *(optional)*			
Date:		Zip Code:	
# in Party:	Your Name:		
WMA:		Tract:	
Have you hunted here before? Yes No			

CHECK OUT *Deposit tag at kiosk, WMA office or mail.*		
Start Time:	**End Time:**	**# Dogs:**

TOTAL # FLUSHED by party			
Rabbits	**Quail Coveys**	**Woodcock**	**Grouse**
TOTAL # KILLED by party			
Rabbits	**Quail**	**Woodcock**	**Grouse**
Rate the hunting experience *(circle one)* Great OK Poor		Rate the habitat you hunted in *(circle one)* Great OK Poor	

Why?
- Premier wildlife management – habitat and harvest
- Questions or concerns: *Cody.Rhoden@ky.gov*, (502) 892-4521

This new quail hunter survey, in the form of a convenient mirror hangtag, was first deployed on 3 public hunting areas in 2018. This survey is intended to assess the level of hunting pressure that is most satisfactory to sportspeople chasing bobwhite on premier public quail hunting areas.

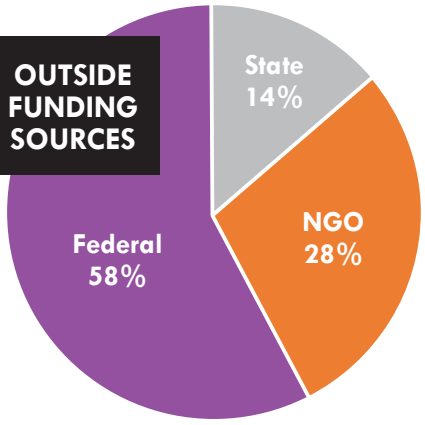
GOAL 4 OVERALL ASSESSMENT:

We have not increased statewide recreation related to bobwhite. Unfortunately, bobwhite hunting interests are at all-time lows. The lack of accessible bobwhite populations is a problem, but the generational disconnect within the hunting community and bobwhite (and small game in general) is the more looming crisis. Baby boomers were the last generation connected to bobwhite. Recruitment, retention, and reactivation (R3) programs should focus greater attention towards small game hunting including bobwhite.

GOAL 5

Generate funding mechanisms to support bobwhite restoration

Dave Baker photo



Federal
Farm Services Agency
Natural Resources Conservation Service
US Fish and Wildlife Service

State
KY National Guard
University of Tennessee

Non-Government Organization
Doris Duke Foundation
Quail Forever
Quail and Upland Game Alliance
Quail Specialty License Plate, LLC
Shaker Village of Pleasant Hill

CHALLENGE 1:

Garner funding for quail restoration

Quail restoration and management is expensive. Restoring habitat requires initial investments coupled with long-term maintenance expenses. It will be critical to secure funding sources to help offset the costs.

STRATEGIES:

✔1. Establish a QU specialty license plate.
✔2. Pursue federal and private grants.
✔3. Provide Kentucky elk permits, buck tags, and turkey tags as auction items for NGO partners.
4. Create a habitat stamp.
5. Revitalize the Kentucky Business Conservation Partnership program to build positive relationships with corporations that could ultimately lead to financial support.
6. Raffle celebrity quail hunt spots through NGO partners.
✔7. Work with Joint Ventures to generate funding.

All strategies should be employed in 5 years.

CHALLENGE 1 FINAL SCORE
4/7 = 57%

CHALLENGE 2:

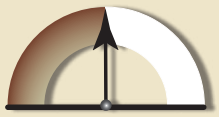
Compile project list for potential philanthropists

Many organizations have charitable funding in place, but they are unaware of projects and their priority. Projects should cover a broad spectrum of costs and be well distributed across the state, so donors can support local needs within their budget.

STRATEGIES:

1. Create prioritized, focal WMA project lists.
✔2. Create prioritized, focus area project lists.
3. Create prioritized, research project lists.
✔4. Create prioritized, Salato Wildlife Education Center project lists.

All strategies should be employed within 1 year.



CHALLENGE 2 FINAL SCORE
2/4 = 50%

GOAL 5 OVERALL ASSESSMENT:

A thorough assessment of outside funding sources and new projects in the last 5 years greatly improved the outside funding contributions towards the restoration effort. The total of just under $2.9 million is respectable, but remains well short of the $7.5 million goal. Any chance of sustained habitat conservation for bobwhite relies almost exclusively on stable sources of dedicated funding that currently do not exist. Through this effort, we believe a well funded intiative would require at least $10-12 million over a 10-year period with some frontloading to invest in equipment.

BLUEGRASS ARMY DEPOT "BEYOND THE FENCE":
Making Conservation Good Business

John Brunjes photo

Despite its unique purpose, the Depot serves as a reasonably characteristic laboratory for testing how we can reconnect bobwhite and cattle in the eastern United States.

THE ROAD TO Recovery has exhausted its planned 10-year timeline, and the next phase of bobwhite restoration begins to take shape. The look and feel of this phase is rooted in conclusions from the last 10 years. According to multiple statewide indices, the bobwhite population in Kentucky continues to decline overall. This decline was not observed on focus areas, as high intensity and focused management produced the habitat and bobwhite with it. The question remains: how to expand lessons learned from the focus areas to the broader landscape?

Enter the Bluegrass Army Depot "Beyond the Fence" initiative, our first effort to make conservation good business. The Bluegrass Army Depot (BGAD) is a United States Army Depot located in Madison County, Kentucky. This fenced 14,494 acre property is used mainly for weapons storage, however much of the open lands are grazed by cattle. The installation also harbors remnant stands of native warm-season grasses, along with planted native grasses and cool season forage. Despite its unique purpose, the Depot serves as a reasonably characteristic laboratory for testing how we can reconnect bobwhite and cattle in the eastern United States.

Utilizing native warm-season grasses for haying and grazing cattle is not a new concept to farmers or wildlife professionals. Native warm-season grasses were grazed exclusively in Kentucky from the arrival of Europeans in the 1700s through their final decimation in the mid-1900s. Today, native warm-season grasses are still grazed by livestock in the more arid Great Plains and westward. Wildlife experts tout the use of the same native plants over non-native plants in the East, because Kentucky wildlife adapted over millennia to the characteristics of those native species and the herbivory (originally buffalo and elk to eventually livestock) that went with them. Therefore, they are best-suited to exist with those plants and disturbance today. Despite the natural connection among native warm-season grasses, grazing, and wildlife, we've been woefully ineffective at bringing them back to the land.

The Bluegrass Army Depot has been a successful Quail Focus Area since 2009. Along with this distinction, BGAD has hosted research on novel native warm-season grass grazing regimes from University of Tennessee (UT) Extension researchers. Our "Beyond the Fence" initiative would be anchored in the relationships formed on BGAD from the grazing contracts, local personnel, and research partnerships formed over the past 10 years of the Road to Recovery.

Along with UT, powerful new partners came to the table including the University of Kentucky (UK) Ag Extension, Madison County Soil Conservation District, Kentucky Cattleman's Association, Eastern Kentucky University Meadowbrook Farm, and Natural Resources Conservation Service (NRCS). With steadfast collaboration among these organizations, planning a new way forward began. The team identified a 10,000 acre focus area just across the eastern fence of BGAD. The partnership set a goal of 25% of the focus area (2,500 acres) be converted to native warm-season grasses in 10 years. A bold target! This focus area is located in the heart of Madison County, a top beef producing county in the state. Kentucky is a leading cattle producer east of the Mississippi River, so the site could serve as powerful example of what could be possible in the eastern United States.

The team was well aware of the plight bobwhite faces, and the reasons for it, but including these stakeholders yielded novel solutions for this problem. Habitat practices must make sense to the largest group of people using the open lands in Kentucky. Cattle farmers and hay producers comprise one of those groups. Roughly 5 million acres have the potential for incremental improvement from overgrazed fescue and reliance on cool season hay production to appropriately managed native warm-season grasses – a lot of potential habitat! KDFWR has attempted these efforts in the past, but with little success. With this high-powered partnership, the story is beginning to change.

Historically, when KDFWR approached farmers, we were often perceived as offering an ultimatum: wildlife or production. Producers didn't look to a wildlife biologist for guidance on farm management. It's a mismatch of expertise when promoting practices that can affect the farm's bottom line. Our biologists tried to convey production and wildlife could co-exist, but the messaging came up short. Perhaps more likely, the wildlife agency uniform and

Gary Price photo

With new partners on board, a focus area outlined, and specific selling strategy; the team went to work identifying landowners in the area that may be interested in establishing native warm-season grass hayfields or pastures.

the stigma that accompanied it broke down the concept. The key to unlocking the message could come from our partnership with UK and UT Cooperative Extension, Soil and Water Conservation Districts, and Kentucky Cattlemen's Association. Individuals from these organizations hold the local confidence and credibility to talk production to the farmer. KDFWR biologists were identified as the native warm-season grass planting and establishment experts, not the frontline salespeople. This tactic could gain the necessary credibility required to get producers to try native warm-season grasses as a component of their farm operation.

With new partners on board, a focus area outlined, and specific selling strategy; the team went to work identifying landowners in the area that may be interested in establishing native warm-season grass hayfields or pastures. Proactively identifying a small subset of progressive and ideally, influential farmers for project initiation was new to KDFWR. The local team identified roughly 12 farmers in the area that met our criteria. Through the team's personal relationships, they invited them to an informal dinner to expose them to the native warm-season grass forage (9 attended). We invested in a high caliber meal (>$20/plate) as a token of appreciation and to help demonstrate we were trying something different. Early adopters are a special group of people, and we wanted our gathering to reflect that characteristic as well. After the meal, we used an outside expert, Dr. Pat Keyser from the UT Center for Native Grassland Management, to pitch our idea. Dr. Keyser was introduced by the local UK Extension Agent and surrounded by local representatives of our partnership to help build his credibility locally. The informal message (just talking around the table with no formal presentation) was almost entirely focused on production benefits of native grasses. Bobwhite was only mentioned as a token benefactor in the end. There was lively dialogue among the participants after the presentation. In the end, every producer agreed to try a native warm-season grass plot on his or her farm. Additionally, they agreed to form a "roundtable" for our group to use as a sounding board for our strategies with the broader local community.

With our new partners on the roundtable, we set to work on the next phase. We planned a recruitment dinner for the remainder of the landowners in the focus area. We mailed letters to every landowner owning more than 20 acres and invited them to an informational dinner. The format of the second dinner was more similar to a typical extension dinner – larger group, formal presentation, partner booths, and modest meal. Differing from the typical extension dinner, our roundtable established the beginnings of a local "buzz". Word of mouth in rural communities is a potent tool. Over 60 people were present at our second dinner representing 25 farms. All 25 farms were favorable towards the presentation and requested a site visit from a KDFWR biologist. At the close of the first planting season, 200 acres were planted largely for production purposes. That's 8% of the team's target in year 1!

We followed that planting season with a native warm-season grass establishment workshop in October on one of our roundtable member's farm. Not a single KDFWR biologist served as a speaker (highly usual for us). We were there in force and helped coordinate and support the event in every way, but we let the credible speakers speak. It was extremely well attended and recruited a couple of new farms to the mix. More importantly, it helped solidify the important work of a marquee roundtable member. It afforded him an opportunity to build a sense of pride, ownership in the cause, and leadership that can help propel the community forward.

The Small Game Program and field biologists provided some important assets to the partnership. Each farm was offered at least 5 acres of free seed and herbicide, access to specialized equipment (drill and sprayers), and technical guidance with no strings attached. No contract, no requirement to maintain the

planting for a designated period of years; simply a gentlemen's agreement sealed with a handshake. This "no-risk" approach, we believe, made a huge impact in early adoption. Perhaps more importantly, the Small Game Program helped coach the local team. A "missing link" in local conservation delivery is the leadership and project management roles. The Commonwealth is blessed with a literal army of talented on-the-ground conservation delivery personnel wearing a multitude of hats. They have more to do than they can ever reasonably accomplish. So, what we (i.e., the conservation community) lack are the coach(es) to bring them all together. Clarity of purpose, the power of a team, and synergy through collaborative enthusiasm is how the playing field is changed. When we work seamlessly together, the impossible becomes possible!

Certainly, this partnership has a long way to go. Year 1 couldn't have been better. Year 2 will focus on making certain our early adopters have successful plantings. We are discussing ways to keep the buzz alive through use of billboards, targeted on-line ads, and signs on our local adopter's properties. Cattle summer grazed on native grasses gained double the weight per day than cattle grazed on cool season grasses from our work on BGAD. As our early adopters recognize native warm-season grasses harbor many grazing benefits compared to traditional exotic cool season forage, they will become our salespeople. As they experience their first drought, we believe the native warm-season grasses will fully secure their value in their farming operation. Deep roots make for great drought insurance.

Our recruitment strategy will evolve moving forward. Planting season 2 will likely be the last opportunity for free seed and herbicide from the Small Game Program. Not because we don't believe in its effectiveness, but actually quite the contrary. We plan to take this model to other project sites in the Commonwealth. As our early adopters become believers in native warm-season grasses over the next 2 years, we plan an all-out blitz with Environmental Quality Incentive Program (EQIP) dollars to ramp up participation across the area. Perhaps a Regional Conservation Partnership Program (RCPP) will be constructed? Additionally, we can use Conservation Stewardship Program (CSP) to continue enhancements of farms building on their improved operations. There is a role for Continuous Conservation Reserve Program (CRP) in this landscape as well, protecting sensitive water resources and giving bobwhite and grassland birds access to relatively small idle areas in this evolving working landscape. We anticipate the native grass paddocks alone won't be quite enough. If we can find just 5% of the landscape to manage as idle grassland areas with a few shrubs, then we expect bobwhite will thrive.

We have a good start towards making conservation good business in Madison County. So far, our methods in this focus area have been successful. Time will tell if this strategy reaches our goal of landscape-scale habitat change. Producers have not yet been able to graze or hay the new native plantings. Despite lacking full proof of concept for this delivery model, we have already established another project site. Green County has a project branded "Conserving the CREP Legacy" underway. The KY CREP was an incredible landscape-scale grassland restoration project. However, the program will fully sunset in 2030 and many of those acres will go back to agricultural production. We hope that production will include heavy utilization of native warm-season grasses as forage and hay to help maintain the conservation gains from the CREP. The model explained above was followed identically and includes the same partners in a new local community. In Year 1, we will establish another 150 acres of production native grasslands. We are seeing similar producer buy-in and enthusiasm as Madison County. We are confident this model is generating buy-in from early adopters.

This 10 year plan is complete, but our work clearly continues. Our goal is to use what we have learned in the last 10 years to successfully turn the page on this chapter and begin to write the next. Chapter 2 should focus on a conservation business model that re-establishes bobwhite as a natural by-product of normal land management. That effort wouldn't solely be branded in the name quail, but in water, soil, wildlife, and air quality that the majority of society can readily embrace. We can't bring back bobwhite, just for the sake of bobwhite. We've learned that lesson well over the last 10 years, but that sure doesn't mean they can't be restored. The path forward is making conservation good business, and that's the best road to recovery.

Chapter 2 should focus on a conservation business model that re-establishes bobwhite as a natural by-product of normal land management. That effort wouldn't solely be branded in the name quail, but in water, soil, wildlife, and air quality that the majority of society can readily embrace.

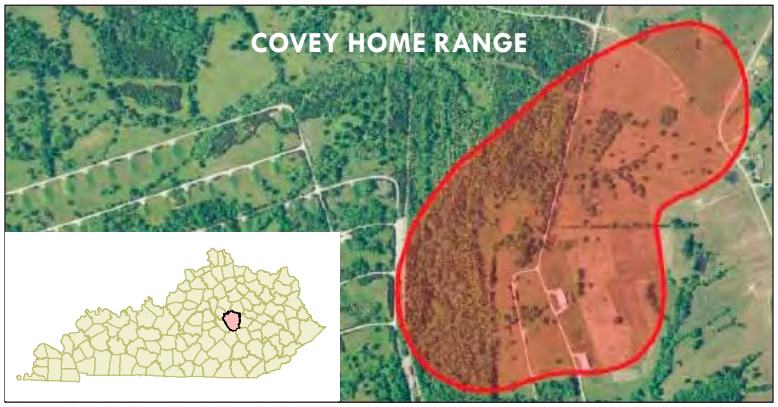
BLUEGRASS ARMY DEPOT QUAIL RESEARCH PROJECT

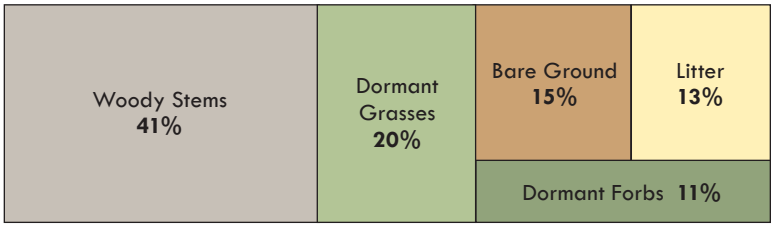
WINTER 2019-20 SUMMARY

32 individuals from
7 different coveys
tracked *5* times/week

Average distance between a covey and woody cover

Winter Survival Rate	Average Daily Movement	Average Home Range
40%	**155 yards**	**124 acres**





Habitat components: Average components of known covey locations

Provided by Doug Mitchell

2019 BREEDING SEASON SUMMARY

30 individuals
≥ tracked *5* times/week

11 nests monitored

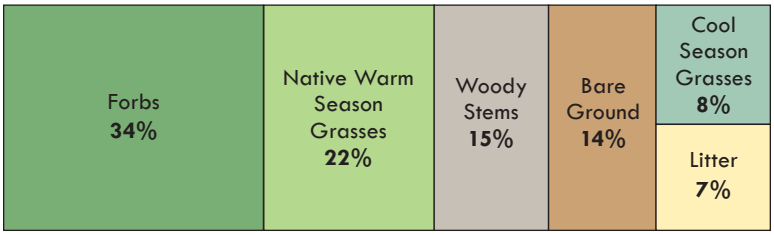
Clutch: range 8-17 eggs

10 failed *(Abandonment, predation, hay mowers)*

1 fledged *(10 chicks)*

Average distance between an individual and woody cover

Average Daily Movement	Average Home Range
151 yards	**49 acres**

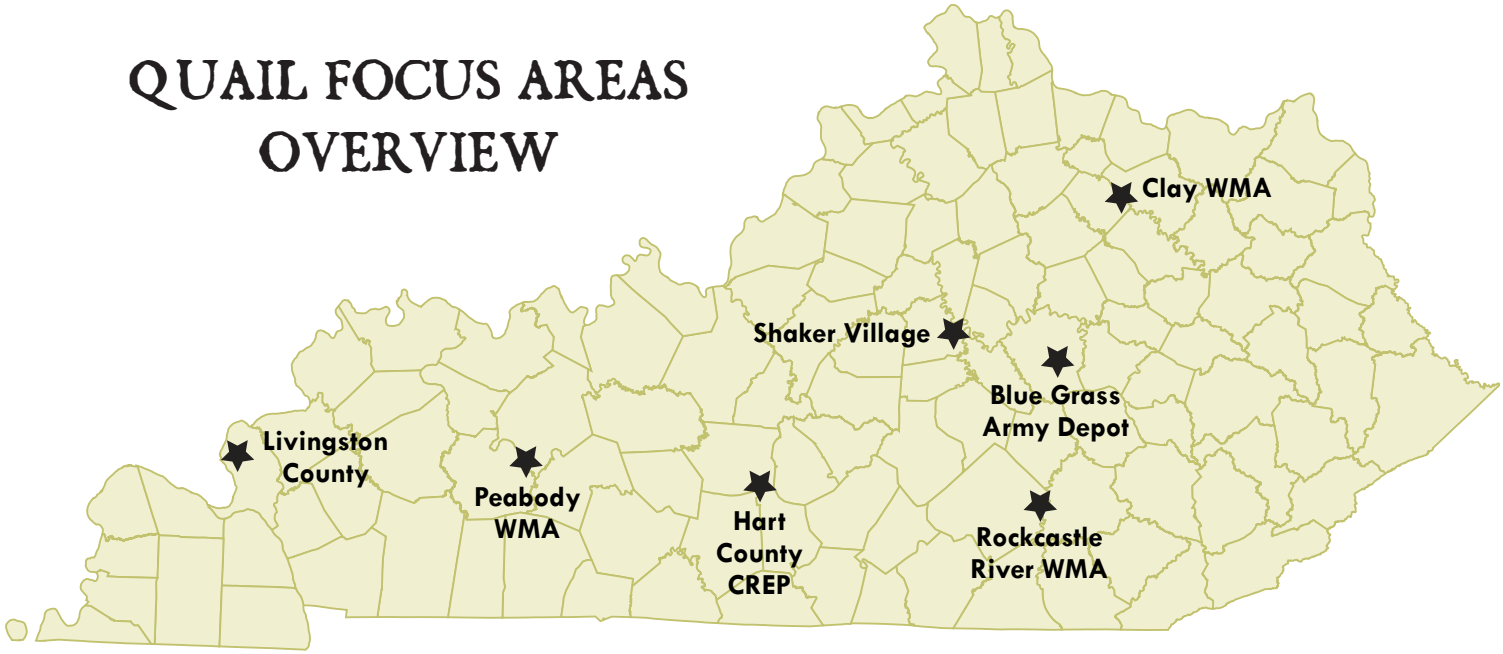


Habitat components: Average components of known quail locations

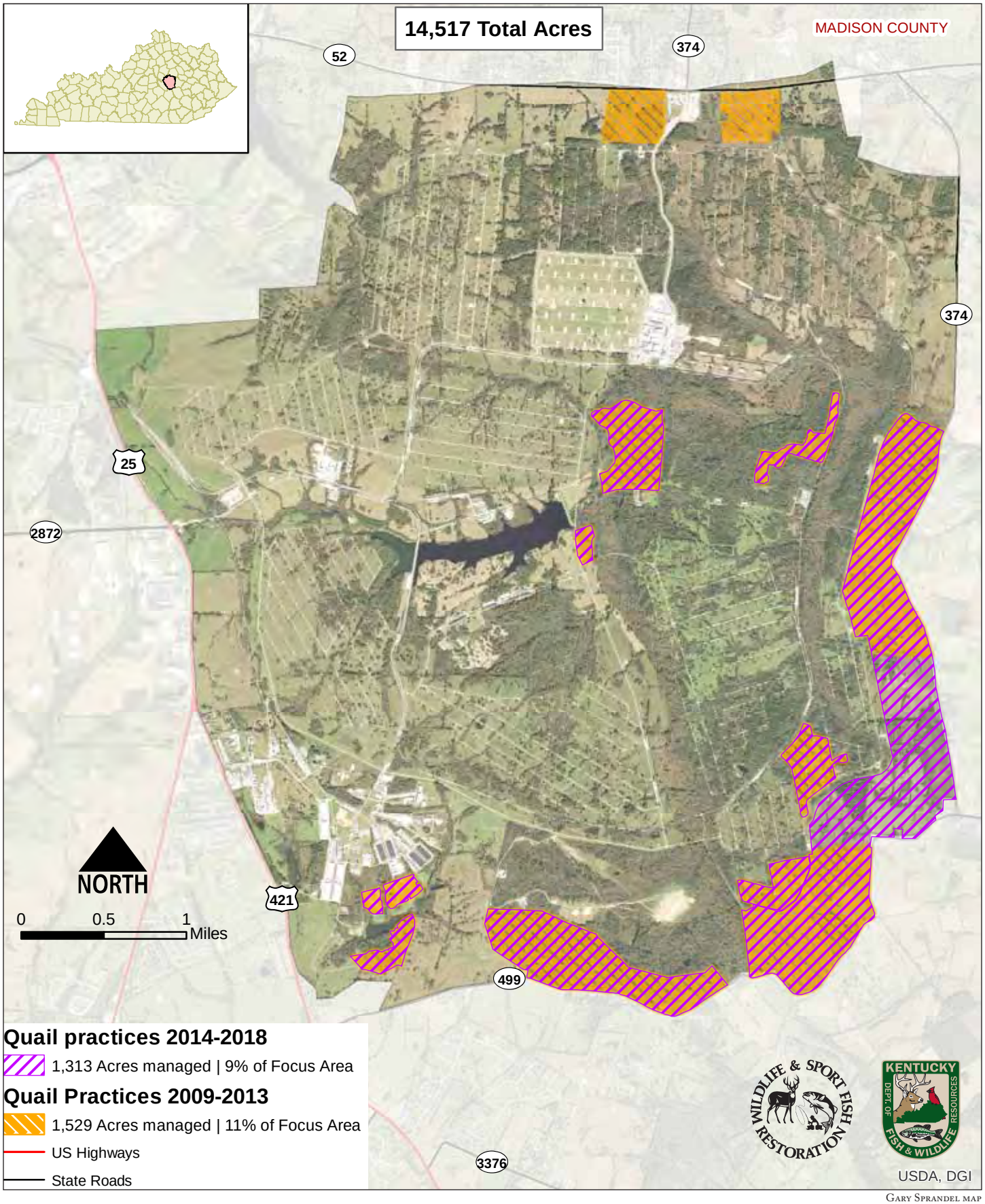
FOCUS AREAS

Ben Robinson photo

QUAIL FOCUS AREAS OVERVIEW



BLUEGRASS ARMY DEPOT QUAIL FOCUS AREA



Gary Sprandel map

BGAD PHOTO

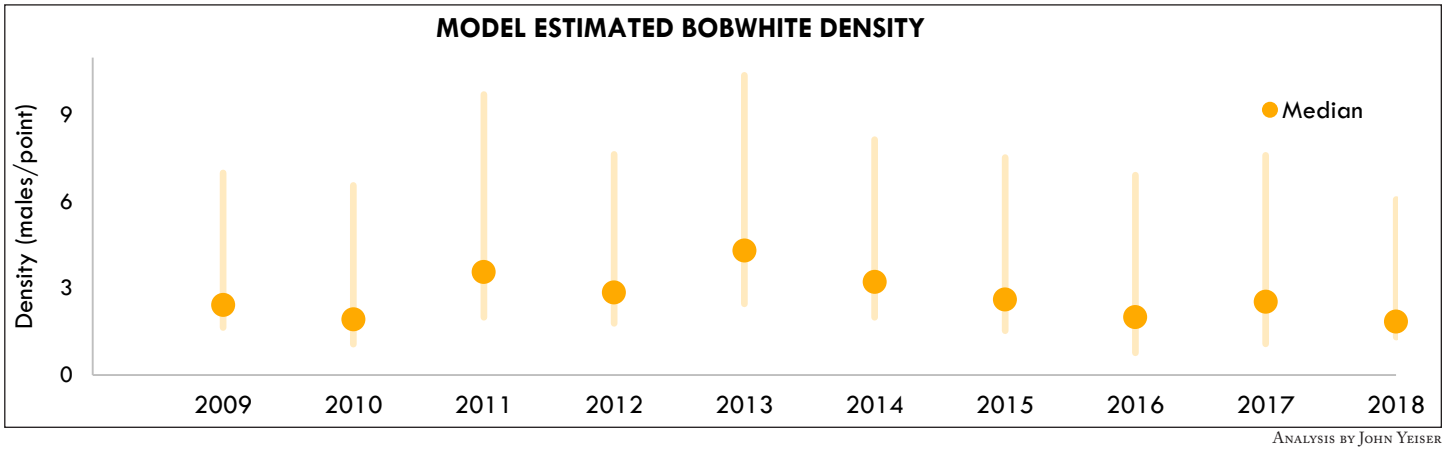
Bluegrass Army Depot team, left to right: Tom Edwards (KDFWR), Marcia Schroder (KDFWR), and Andy D. Dickson (BGAD).

"Rather than rely heavily on disking, prescribed burning, herbicide, and food plots as proven ways to produce the best quail populations, we chose to primarily manage our project area as a cattle farm. Cattle grazed our native grasses. We monitored cattle weight gains and quail numbers. In the end, we recorded excellent cattle performance on native grass pastures as well as an increased number of quail. The big-picture, lesson learned is even if a landowner plants native grasses to improve beef production there is great potential to improve bobwhite populations on Kentucky's 5 million acres of cattle farms."

— Tom Edwards, KDFWR
Public Lands Biologist

PRACTICE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
Herbicide Application	3	26	55	78	73	15	15	75	15	90	445
Disking	0	0	5	5	5	6	10	8	8	12	59
Planting (NWSG)	7	30	59	80	35	0	0	39	40	56	346
Planting (other)	0	0	0	0	0	5	5	10	5	3	28
Fire	974	1,300	484	804	277	65	46	178	170	446	4,744
Grazing (NWSG)	257	566	841	841	257	150	150	150	150	205	3,568
Grazing (fescue)	0	0	0	0	0	529	244	244	244	394	1,655
Woody control	0	0	20	10	7	12	0	0	0	0	49

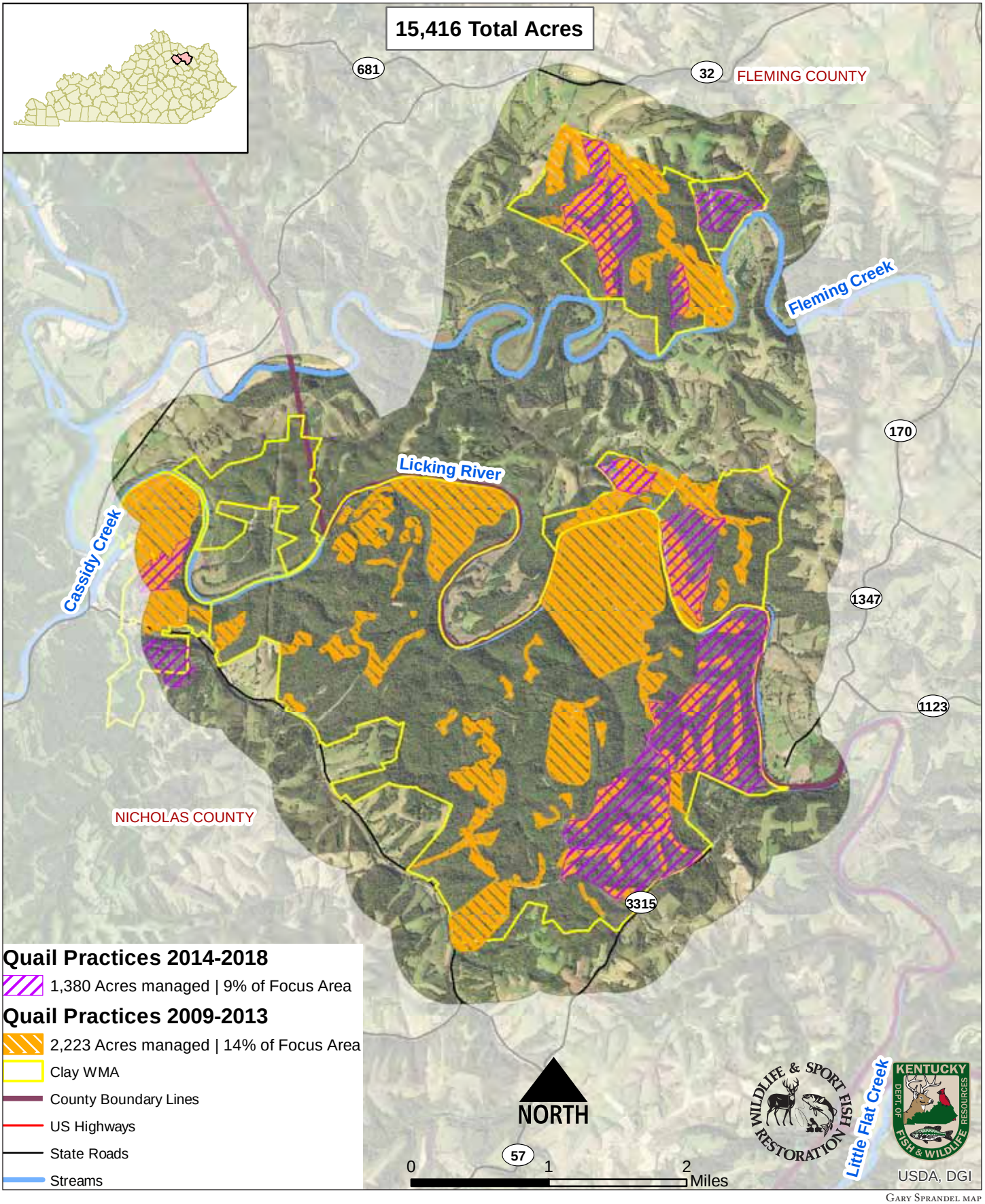
BLUEGRASS ARMY DEPOT: BOBWHITE RESPONSE



ANALYSIS BY JOHN YEISER

Estimates presented are median values from a hierarchical distance sampling model that also uses time-of-removal information to inform the detection process. Error bars represent 95% Bayesian credible interval (BCI). The BCI is analogous to the confidence interval (CI) in frequentist statistics. Model estimated median values represent density of singing males per point on the Focus Area. Annual spring auditory point counts were used in the modeling process. These surveys are conducted on each Focus Area in the month of June and record the number of calling males at each point.

CLAY WMA QUAIL FOCUS AREA



Gary Sprandel map

KDFWR PHOTO

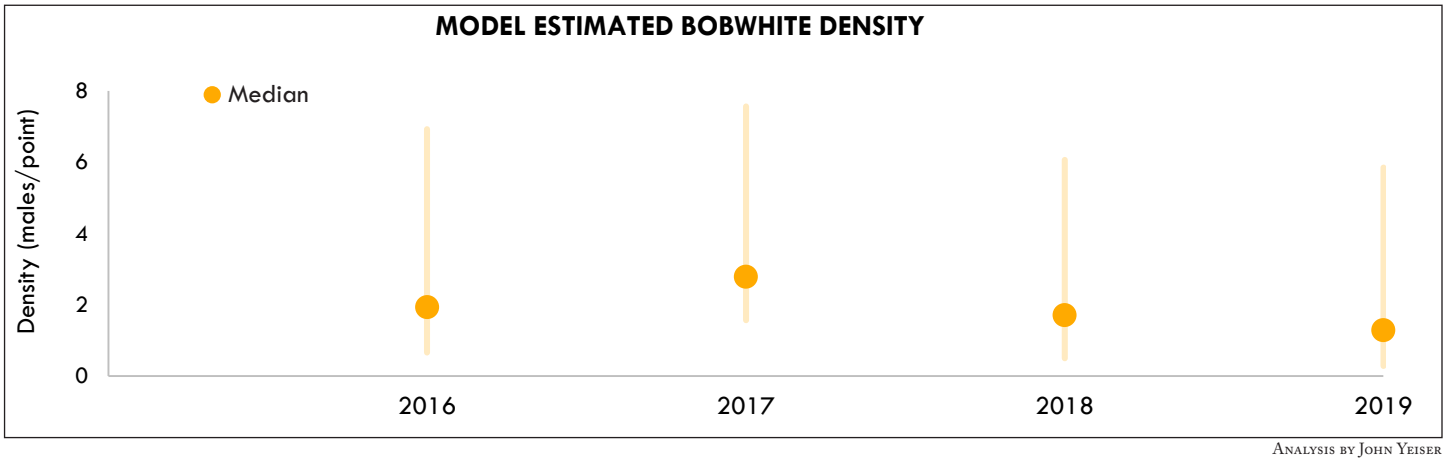
Clay WMA team, left to right: Brian Wagoner (KDFWR), Nathan Gregory (KDFWR), and Jacob Stewart (KDFWR).

"Being a quail focal area has allowed my staff and I to make habitat management a priority on Clay WMA. The status gained us critical equipment and manpower to get the job done. After 10 years of intense habitat management, we have not only seen an increase in quail but also in many other species, both game and non-game. The Road to Recovery was a suitable name for this project. I believe we have moved far down the road, but there are many pot holes, such as lack of funding or priority shifts, which we will need to steer to avoid."

— Nathan Gregory, KDFWR
Northeast Regional Coordinator

PRACTICE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
Controlled Burning	400	303	200	176	367	564	328	810	1,235	1,380	5,763
Disking	38	31	0	0	19	25	95	122	131	152	612
Herbicide Application	628	560	30	250	275	123	60	249	102	158	2,435
Planting	100	65	20	42	122	24	25	44	40	0	482
Woody Control	72	71	26	130	177	75	110	54	123	75	913

CLAY WMA: BOBWHITE RESPONSE



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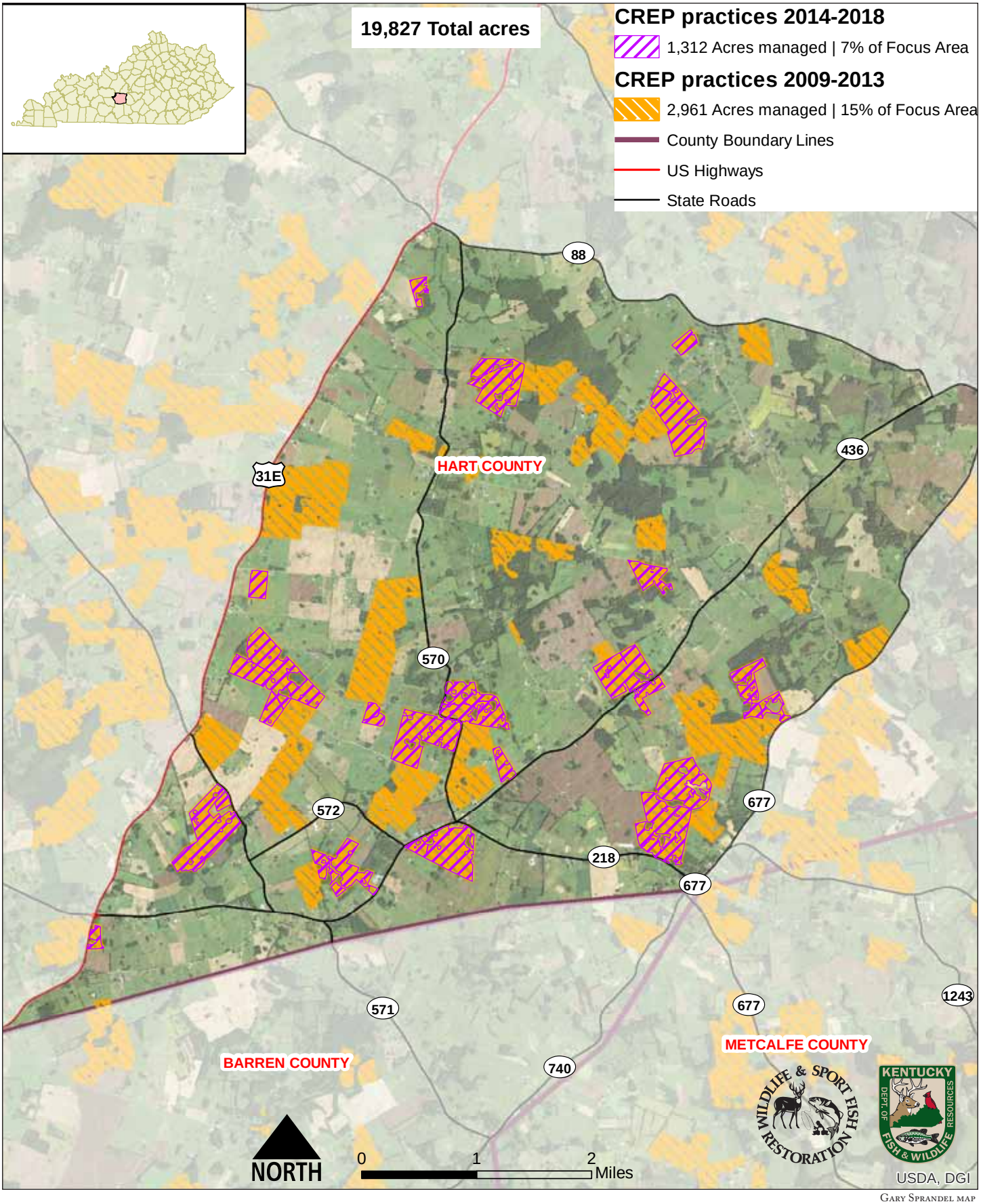
HART COUNTY CREP QUAIL FOCUS AREA



Gary Sprandel map

KDFWR PHOTO

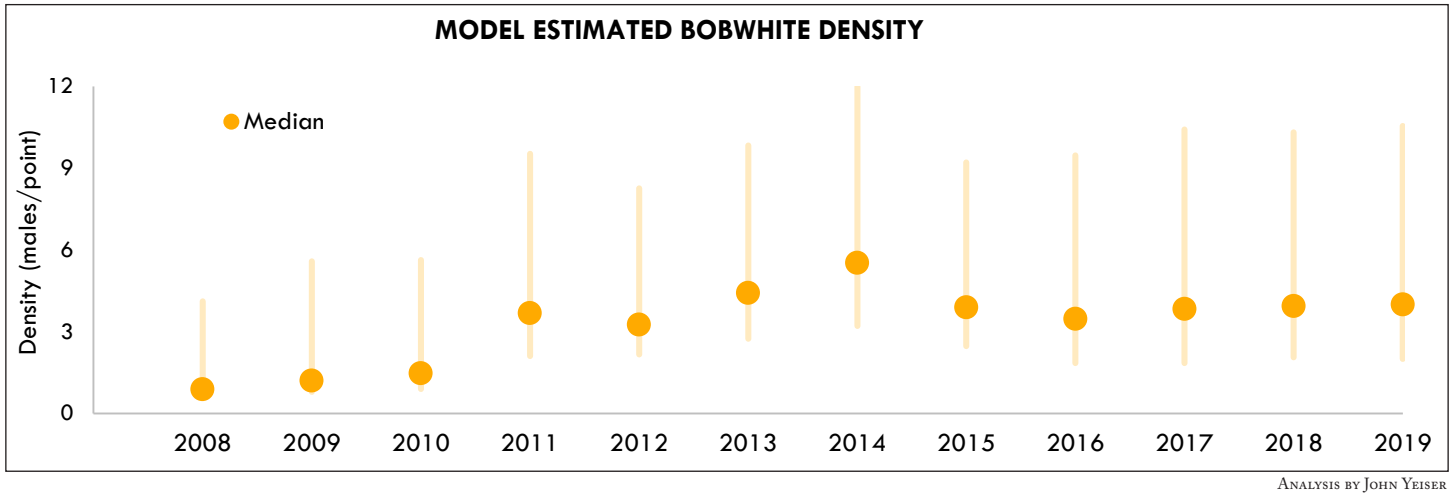
CREP plantings were largely planted to short stature native warm season grasses and diverse wildflowers.

"I personally witnessed the conversion of thousands of acres of open agriculture lands to quality wildlife habitat through the KY CREP. I observed the immediate response of bobwhite and grassland songbirds to the habitat improvements through the native prairie plantings. Many of my landowners reported the same wildlife improvements. Some even said they were seeing bobwhite for the first time on their farm. As would be expected, not every acre enrolled in CREP was managed perfectly, but KY's CREP undeniably demonstrated that we can create enough landscape-scale habitat to restore bobwhite and grassland songbirds."

— Chris Mason, KDFWR
Private Lands Biologist

PRACTICE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
Herbicide Application	0	0	0	0	346	117	652	107	13	32	1,268
Disking	0	0	191	12	13	40	40	0	0	0	295

HART CO. CREP AREA: BOBWHITE RESPONSE



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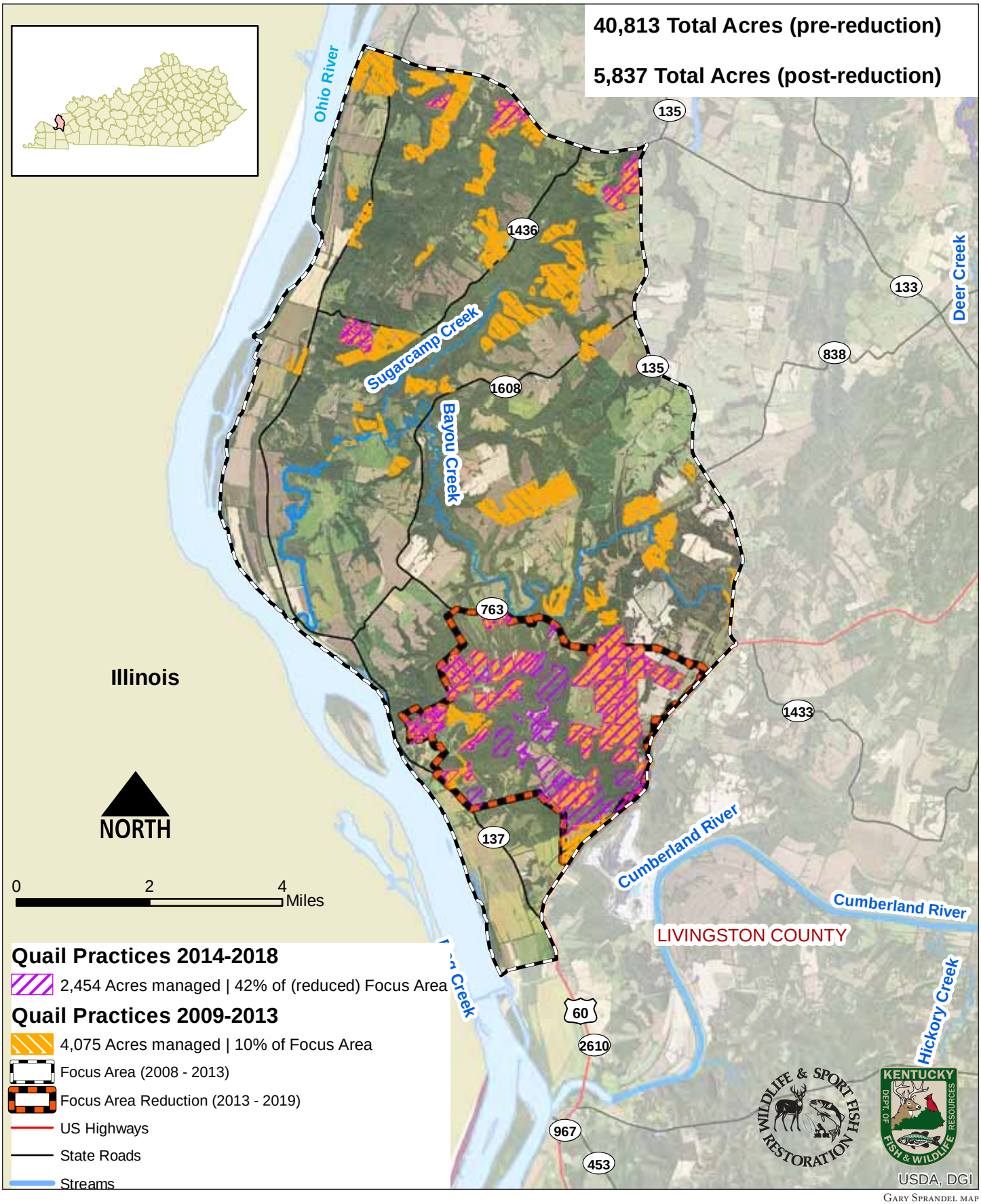
LIVINGSTON COUNTY QUAIL FOCUS AREA



Gary Sprandel map

Ben Robinson photo

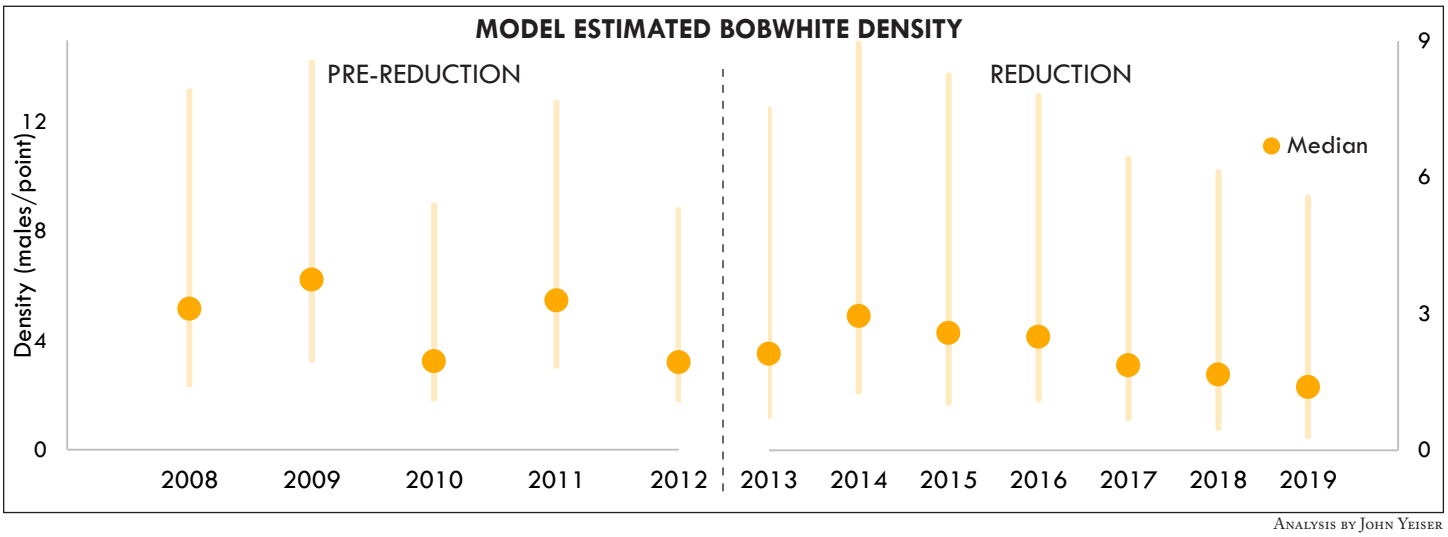
Livingston County team, left to right: Andy Radomski (USFWS), Jason Scott (KDFWR), Philip Sharp (KDFWR), Shelly Morris (TNC), Pat Brandon (KDFWR), Robert Hoffman (KDFWR), and Madeleine Pratt (KDFWR).

"Working as a Private Lands Biologist, you must balance your personal and professional desires with the reality of what private landowners face. Landownership changes and financial struggles will directly affect every private lands project. We started the Livingston County NBCI project with large amounts of habitat and bobwhite but ended with low amounts of both. The loss of CRP contracts was the driving force. This is the reality of the diverse dynamics that influence privately-owned, landscape-level projects. We must not let setbacks define the future of private lands management for the future of the resource relies upon it."

— Philip Sharp, KDFWR
Private Lands Biologist

PRACTICE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
Herbicide Application	50	42	305	439	12	589	415	234	662	280	3,027
Disking	6	0	0	57	700	792	1,520	1,102	1,461	997	6,635
Planting	173	330	892	63	704	105	391	226	421	133	3,438
Fire	434	375	687	717	779	700	792	398	673	434	5,988
Woody Control	24	0	412	410	1,024	663	90	0	0	142	2,765

LIVINGSTON COUNTY: BOBWHITE RESPONSE



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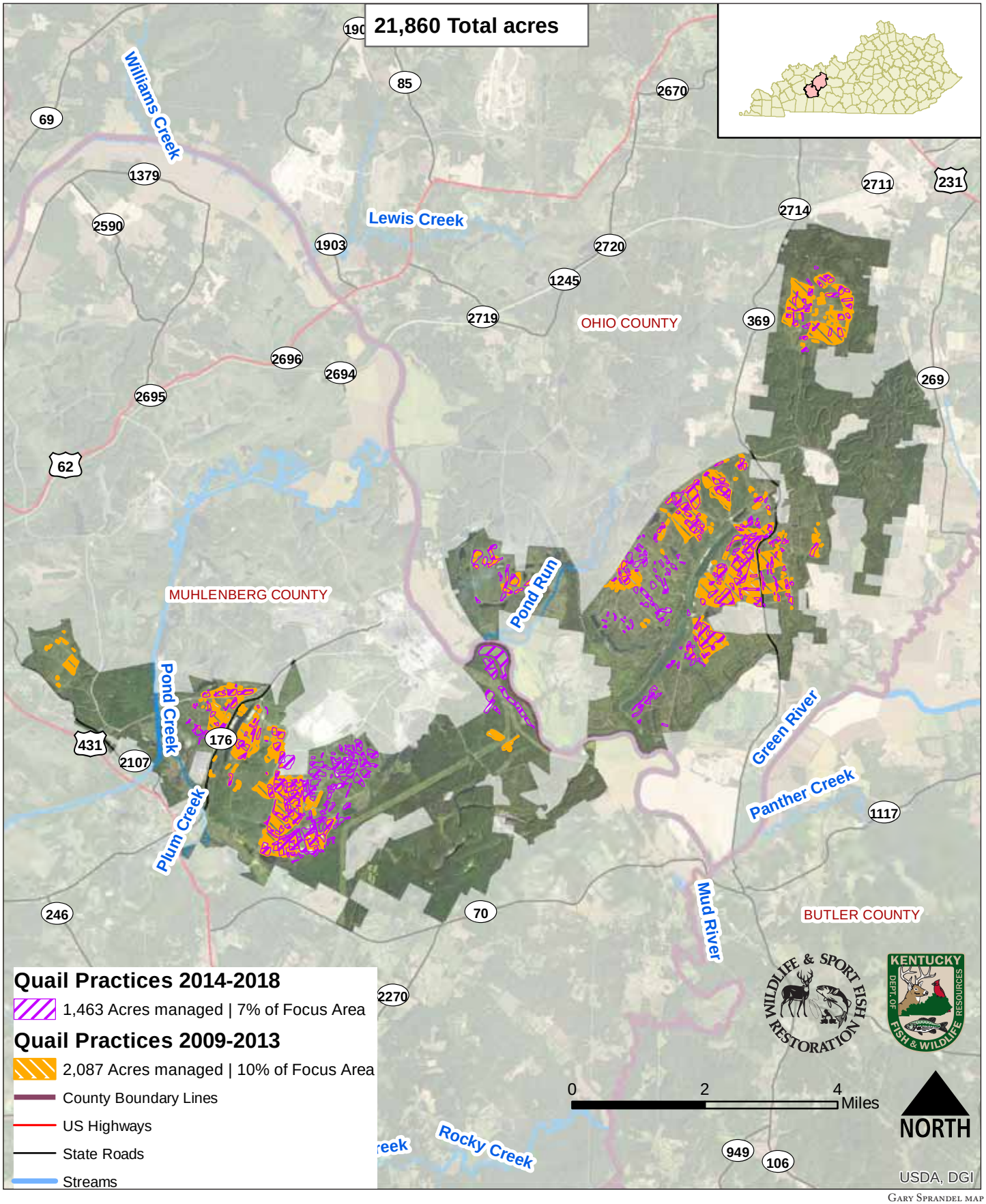
PEABODY WMA QUAIL FOCUS AREA



Gary Sprandel map

Cody Rhoden photo

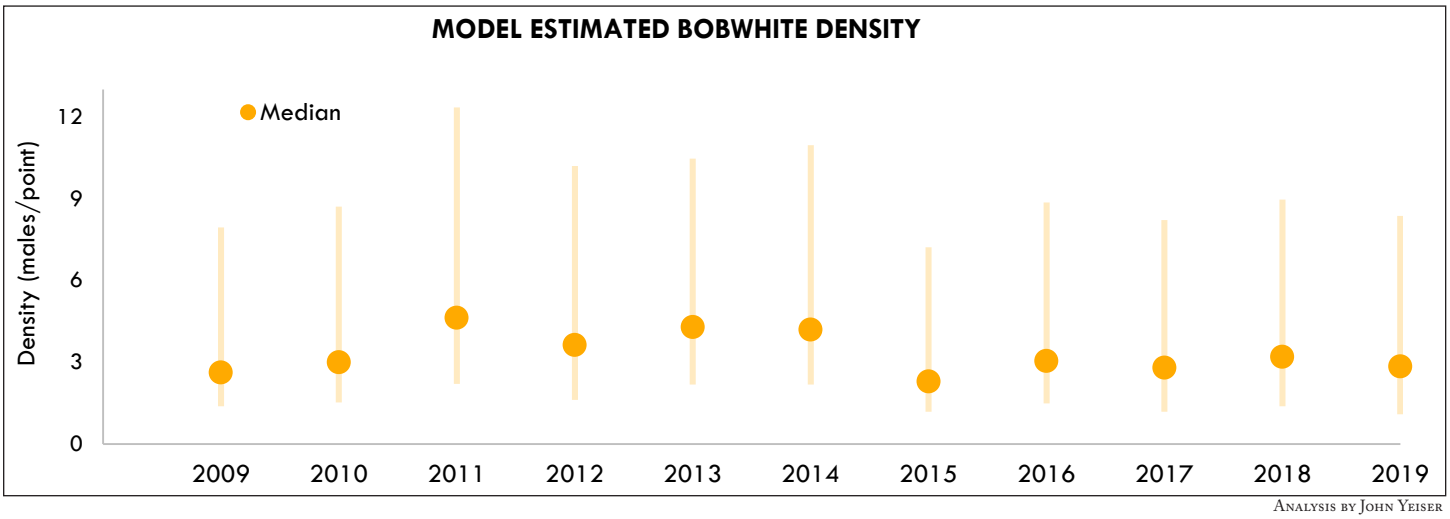
Ice and winter weather similar to this at Peabody WMA mark the importance of thick shrubby cover for bobwhite. This type of cover is often limiting to quail populations in Kentucky.

"The bobwhite initiative on Peabody Wildlife Management Area has been an extraordinary experience for the Peabody crew. The lessons we have learned regarding habitat management and bobwhite natural history on the area will prove to be invaluable as we move forward in our efforts to provide quality small game habitat for future generations."

— Eric Williams, KDFWR
Public Lands Biologist

PRACTICE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
Herbicide Application	0	0	350	0	46	36	189	253	130	0	1,004
Disking (block)	42	377	177	259	256	221	524	536	80	150	2,623
Disking (linear)	157	157	157	157	157	157	157	157	157	157	1,570
Planting	0	0	94	18	0	150	198	195	217	122	994
Fire	425	0	604	87	685	0	0	0	0	0	1,801

PEABODY WMA: BOBWHITE RESPONSE



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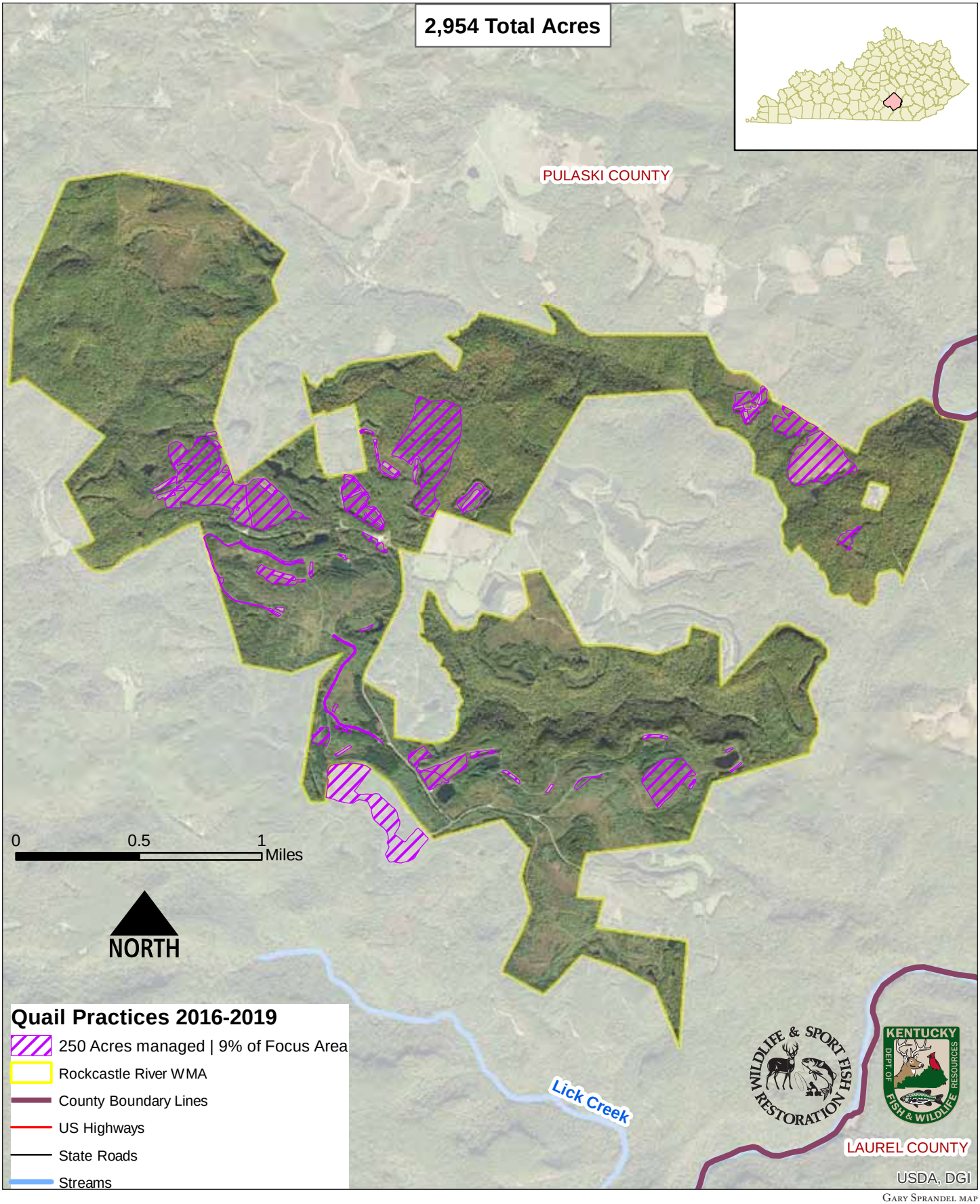
ROCKCASTLE RIVER WMA QUAIL FOCUS AREA



Gary Sprandel map

Mike Strunk photo

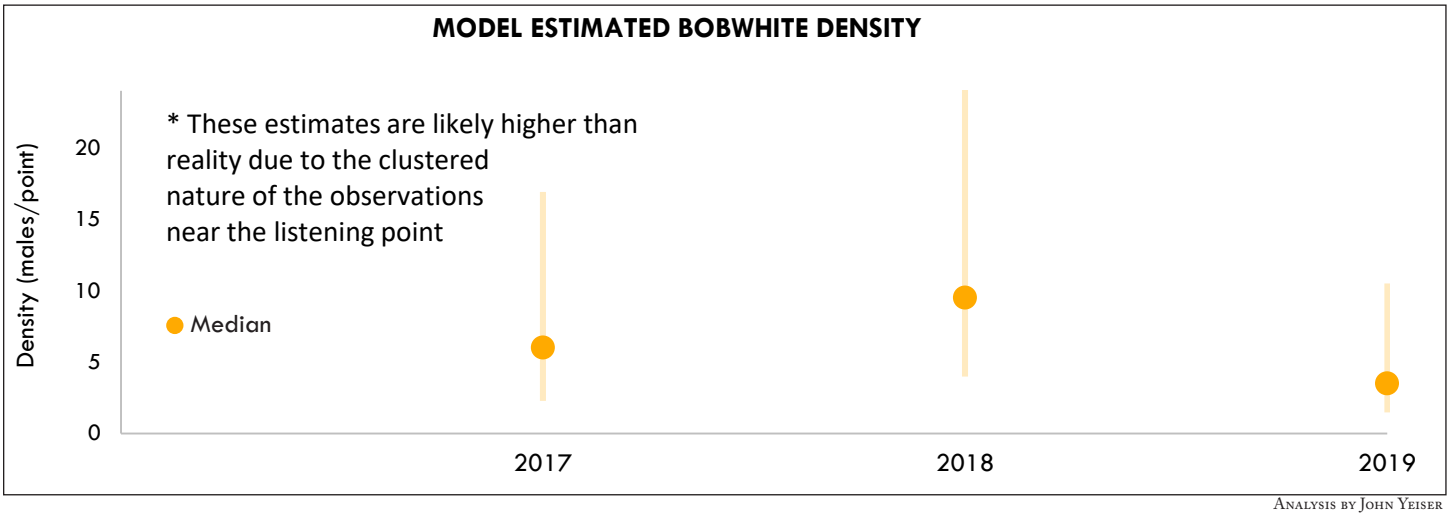
Disking is a critical management tool on Rockcastle WMA. The practice restarts the vegetative community on reclaimed minelands creating bare ground and diverse food for bobwhite.

PRACTICE	2017	2018	2019	TOTAL
Controlled Burning	0	59	90	149
Disking	10	30	30	70
Herbicide Application	66	30	45	141
Planting	57	20	45	122
Woody Control	36	52	80	168

"Two things make me incredibly optimistic about the potential of bobwhite management on Rockcastle WMA, the staff and conservation partnerships. We've hit the ground running making immediate changes in the habitat through controlled burning, brush control, and invasive plant removal. Partners, like NWTF, have immediately jumped in to make the project better for wildlife in general. We know it's just a matter of time for more bobwhite to call Rockcastle home!"

— Mike Strunk, KDFWR
Southeast Regional Coordinator

ROCKCASTLE RIVER WMA: BOBWHITE RESPONSE



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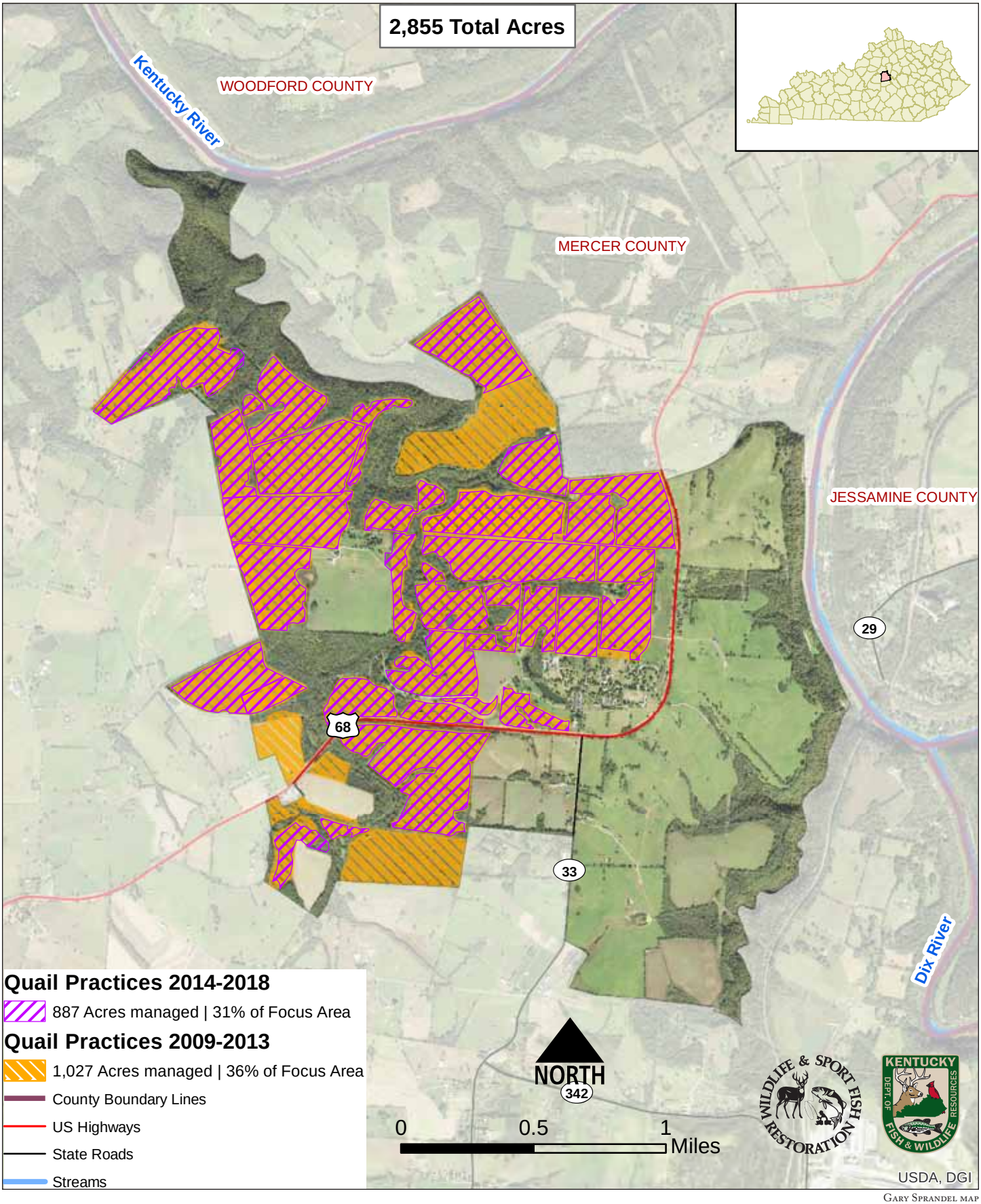
SHAKER VILLAGE QUAIL FOCUS AREA



Gary Sprandel map

John Brunjes photo

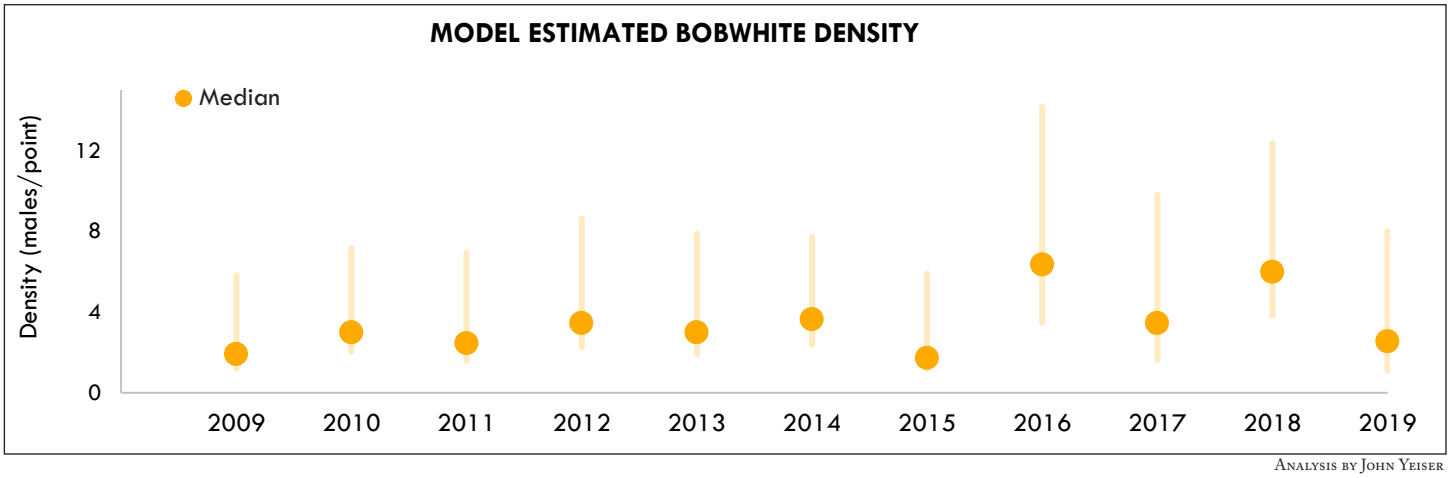
Aerial photo of Shaker Village clearly showing the planting rows for prairie restoration.

"This project has helped transform the landscape at Shaker Village from marginal farmland to wildlife haven. It has enhanced the guest experience, been used as an educational tool and model for other private landowners, and helped bring attention to habitat restoration in central Kentucky. Every species on the property has been positively influenced by this project."

— Ben Leffew, Shaker Village Land Manager

PRACTICE	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	TOTAL
Herbicide Application	699	275	121	129	192	70	0	15	0	0	1,501
Mowing	408	17	6	93	35	15	15	15	15	15	634
Disking	0	0	0	0	0	5	0	15	5	10	35
Planting	514	36	121	93	35	51	0	0	0	0	850
Fire	291	84	375	300	295	457	390	315	444	0	2,951

SHAKER VILLAGE: BOBWHITE RESPONSE



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QUAIL PLAN ASSESSMENT TIMELINE

1 YEAR

Lack of monitoring: Employ monitoring plan in 1 year for 2 focal areas. Employ monitoring plan by year 6 for remaining 2 areas.

Employ monitoring plan on all focal WMAs in 1 year.

Compile project list for potential philanthropists: All strategies should be employed within 1 year.

2 YEARS

Renovate public wildlife management areas (WMA): Create WMA management plans in 2 years. Implement plans over the following 8 years.

3 YEARS

Provide additional training for staff: Employ all strategies within 3 years.

Purchase necessary equipment: Employ all strategies within 3 years.

Control hunting pressure on WMAs: Employ a unique hunting framework on each focal WMA within 3 years.

Enhance habitat on surrounding private property: Employ all strategies within 3 years.

5 YEARS

Involve non-hunting groups and the public: Employ all strategies within 5 years.

Adequately support focus areas: Employ all strategies in 2 focus areas in 5 years. Initiate all focus areas in 8 years.

Generate landowner interest: Employ 5 strategies on 2 focus areas in 5 years. Employ a minimum of 5 strategies in 10 years on remaining focus areas.

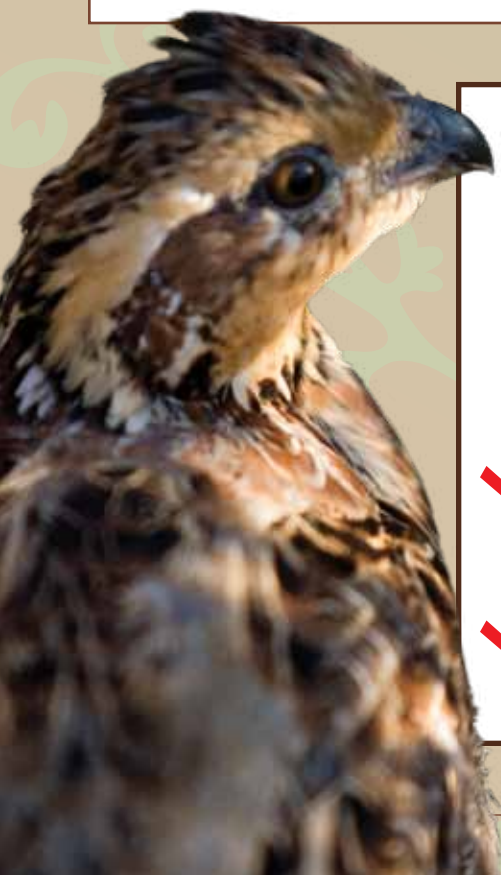
Increase focal WMA staff: Employ a minimum of 2 strategies on 3 focal WMAs in 5 years. Employ 2 strategies on remaining WMAs in 10 years.

Provide positive hunting experiences: Employ all strategies within 5 years.

Control hunting pressure on WMAs: Summarize social and biological impacts to controlled hunting in 5 years.

Renew aesthetic interest in quail: Employ all strategies within 5 years.

Garner funding for quail restoration: All strategies should be employed in 5 years.



6 YEARS

Lack of monitoring: Employ monitoring plan by year 6 for remaining area.

8 YEARS

Adequately support focus areas: Initiate remaining focus areas in 8 years.

10 YEARS

Enhance Row Crop Operations: All strategies should be employed in 10 years.

Augment mine reclamation projects: Enhance 10,000 acres of mine reclamation projects for early successional wildlife. Renovate 10,000 acres of bond released lands for early successional wildlife.

Revolutionize Grazing Operations: Employ 8 strategies in 10 years.

Spawn participation in cost-share programs, particularly those designed for quail: All strategies should be employed in 10 years.

Amplify prescribed burning across the landscape: All strategies should be employed in 10 years.

Establish Kentucky-based quail research: Employ 3 strategies in 10 years.

Generate public interest and awareness about bobwhite: Employ a minimum of 20 strategies over 10 years.

Supply landowners the equipment to establish and manage quail habitat: Employ 4 strategies within10 years.

Build relationships with partners: Employ all strategies over a 10 year period; generating 25 partner agencies and organizations.

Design or plan developments in an environmentally-sensitive manner: Employ 3 strategies over 10 years.

Generate landowner interest: Employ a minimum of 5 strategies in 10 years on remaining focus areas.

Increase focal WMA staff: Employ 2 strategies on remaining WMA's in 10 years.

CHARGE FOR THE FUTURE:
Can We Finish the Race?

Chris Mason photo

We must identify the theme(s) that bring "grasslands" to the same impact as "wetlands" to society. When we find that, success will find us!

UPON REVIEW OF the data summaries in this report, we are proud of our accomplishments. We largely did what we set out to do and generated several lasting products. Yet, we fear the likelihood of reaching the finish line at this moment is low. We lack the enthusiasm and prioritization at all levels to garner the resources needed to complete the race (i.e., restore bobwhite).

The Kentucky pension crisis, collapse of bobwhite grassroot interests, and the aging of the Baby Boomer generation (our largest segment of hunting license holders) are obstacles that cannot be ignored. These realities restrain the Department and will ultimately result in a shrinking of staff and reduced operational funds, barring new funding solutions. A landscape-scale habitat transformation requires more of both!

The Department has shouldered much of the financial burden over the course of this plan. We proved we know how to restore bobwhite, but we've failed to prove (or more poignantly sell) why people should care. Bobwhite have a relevancy problem. Our bobwhite hunting public likely number 6,000 to 7,000 people which comprise a paltry 0.15% of Kentuckians. Non-hunters do appreciate bobwhite, but those connections are weakening. As farms held by Boomers transition to Gen Xers, the connection of knowing bobwhite is almost completely severed. To be brutally honest, people are more disconnected from the land, and the wildlife thereon, than ever before. We have to change our narrative and expand our audience.

Let's put things in perspective: the state wildlife agencies have an amazing track record of wildlife recoveries over the last century – deer, wild turkeys, elk, eagles, waterfowl, and otters to mention just a few. Heavy exploitation through human harvest drove the majority of these species to the brink of extinction. Regulations were formed and recovery programs developed. The common theme was habitat in sufficient quality and scale coupled with prevailing human land use that fit the species annual needs for the long-term. It wasn't important for people to change their land management behavior, so relevancy was not a critical issue. The lone exception is the waterfowl story.

The waterfowl restoration model is our shining example of an undisputed wildlife success story. It blends habitat conservation, policy (most importantly, "no net loss"), regulation, dedicated funding, and partnership as the recipe for success. In many ways, its success was bigger than waterfowl. Wetlands became a national issue gaining notoriety among society as a whole. Wetlands became a core component of science taught in our schools. Simply, all people can appreciate clean water. We contend waterfowl were a notable by-product or benefactor of a societal movement largely centered on clean water. If we truly assess our species restoration successes, we will repeatedly find that habitat was a natural by-product of man's use of land for reasons that were truly beyond wildlife. Finding a solution for bobwhite aimed at supporting huntable densities of birds across the range cannot be accomplished under the banner of just bobwhite, and likely even wildlife in general. We must identify the theme(s) that bring "grasslands" to the same impact as "wetlands" to society. When we find that, success will find us!

The waterfowl model centered largely on regulatory and policy solutions. We'd aspire our movement to focus on a business model. We must make conservation "good business". A business model is voluntary and complementary to the demand of customers (i.e., consumers of food and fiber). It's resistant to political whims like the loss of Conservation Reserve Program acreage and has a sustainable fit with the future. Product certifications ensuring sustainability and stronger requirements for conservation through publicly subsidized crop insurance are great places to start. Tax credits and mitigation programs for ecosystem services provide even more pathways. These mechanisms can help avoid listings of threatened and endangered species.

No one wants a listed species – the government, private landowners, society, and business. It is our common thread. Bobwhite have yet to reach that level, but continued range contraction and sustained rates of decline could soon start those conversations. We need to use the more than 60% loss of native grasslands (keep in mind wetland movement baseline was approximately 50% loss) as our drum beat for ac-

Cody Rhoden photo

tion. Lots of species depend on native grasslands including songbirds and pollinators. Deer and turkeys like grasslands. Yet, we must tie grassland restoration beyond wildlife. Water quality can be linked to our work, carbon sequestration, air quality, and soil conservation. The holy grail of relevance is human health and wellness. If we link grasslands with human well-being, habitat we will have! Ultimately, we need as many connections with grasslands we can muster to generate relevance with society.

We have to work smarter and not harder. Our strength is our community of conservation partners. The most well-organized and lasting grassland partner sharing our vision has been the National Bobwhite Conservation Initiative (NBCI). The partnership dates back to 1996 and has brought together 25 state wildlife agencies, federal agencies, universities, and non-profit organizations. Their work inspired this plan and KY's call to action. They are responsible for elevating the national status of bobwhite, molding Farm Bill programs, advancing bobwhite science, leveraging partner resources particularly through collaborative monitoring, and creating a national marketing campaign. Changing people's behavior of land management is far more than any one state can accomplish alone. It will require a collective movement pushing in one direction – together. If the Department can only invest in one thing for the future of bobwhite, then it's a strong and engaged investment in the NBCI partnership.

The NBCI partnership is facing the same relevancy challenge across the range. They are in the process of evolving. Their evolution will be heavily influenced by this effort in KY. Our restoration effort will stand as one of the best documented investments towards bobwhite restoration ever attempted. That's what we set out to do. Simply, it's the only way to learn and adapt, so we can ultimately reach the finish line. That doesn't mean this effort was perfect – far from it! But, it did set a tone of accountability and honest and open reporting of what was completed and what was not. We now have something that we can build from and reflect upon to forge new paths tomorrow.

With this plan coming to a close, we continue the hard work of habitat restoration and management. We are moving forward with the lessons learned from the past 10 years. We are focusing on making conservation good business. The on-going research at Bluegrass Army Depot aimed at reconnecting cattle and bobwhite is one of our brightest opportunities. Native warm-season grasses produce greater weight gains than cool season grasses in the summer. They are also fantastic drought insurance! So far, bobwhite are readily using these pastures. These are the types of solutions that influence landscape-scale change. These are the types of solutions that begin to recover bobwhite!

Additionally, we are building new relationships focused on locally-led initiatives. We are finding our best delivery personnel that overlap with strong conservation opportunities. These new teams are delivering private lands conservation in highly targeted landscapes (about 10,000 acres). We are developing monitoring programs to not only measure grassland bird responses, but working towards water quality monitoring. We aspire to bring in pollinator monitoring efforts to continue to build the value and relevancy of good grassland conservation to local people and society at large.

Changing people's behavior of land management is far more than any one state can accomplish alone. It will require a collective movement pushing in one direction – together.

"The KDFWR "Road to Recovery" is on history's top shelf of state quail initiatives. The early years of the initiative demonstrated the exciting possibilities of a well-designed, strongly supported and aggressively implemented state bobwhite restoration effort. The result was a landmark 5-year Benchmark Report that highlighted impressive achievements and presumably would have ignited even greater excitement and support. The later years of the 10-year Road, however, repeated a long history of flash-in-the-pan state quail initiatives, in which inconsistent leadership, shifting funding priorities, short attention spans, and inadequate public support combine to sap quail conservation of its momentum. Looking ahead, Kentucky is still in good position to remain a national quail conservation leader if renewed political commitment, public support and sustainable funding can be secured."

— Don McKenzie, retired Director of National Bobwhite Conservation Initiative

Cody Rhoden photo

Bobwhite still are an important icon, but we are not nearly as laser-focused on them as we once were. Our focus areas from this plan were designed to build bobwhite meccas (as best we could at least!). The new vision is to generate multi-resource benefits that support elevated numbers of bobwhite while providing a host of other societal benefits. Our ultimate success for bobwhite will be when we restore a sea of well-connected marginal habitat. In theory, we believe this will result in more sustainability over time, more relevancy to a broader base of people, and provide a more realistic target for success.

We've been asked, "Will you write another recovery plan?" That's a really good question. It's taken a substantial amount of focus, determination, and effort to stay true to what we set out to do for 10 years. It's hard to refute the plan helped generate results. A new plan should follow the NBCI's vision through the Coordinated Implementation Program (CIP). It uses the focus area as the foundation and challenges partners to scale-up conservation to landscapes and regions around it over time. By clearly identifying restoration targets, management actions and strategies are more tangible and realistic to measure.

The new projects in Madison and Green counties should be strongly considered as new CIP projects. A landscape and region would need to be defined and a shared reference area created. The continued work at Clay WMA also warrants strong consideration for inclusion as well. Yes, that would make a total of six national focus areas (3 public and 3 private) with two reference areas in KY! That is a helluva lot of work, but the CIP is bigger than bobwhite. It's a habitat development platform molded by science and driven through an adaptive management framework. Efforts are underway to expand the CIP beyond bobwhite and songbirds to pollinators, water quality, and more. It's the model for effective private lands conservation delivery in the Commonwealth. It's work every agency should be doing to improve land management for generations to come. The wildlife profession has pontificated about this model for decades, but rarely been able to muster the collective resolve to implement it. The NBCI partnership has cleared that hurdle, and KY helped lead the way in its development. By leveraging our results with as many as 25 states, learning is accelerated and certainty is dramatically increased. It's hard to argue this shouldn't be the path forward, because science is a core value of our agency's work.

Ultimately, another plan should be written, but it is best done with a fresh set of eyes and a new, revved up motor. The fastest races are done via relays and why would this be any different? There's much to be drawn from this work towards building a new and exciting recovery plan. We've reported where we've been and provided guidance on where we need to go. Use an inclusive process to build a plan that resonates with a broader base of professionals. Buy-in is all but guaranteed when individuals are a part of its construction. The challenge for the next leg will be the same as ours – hold true to the race and do everything possible to maintain the momentum.

ACKNOWLEDGEMENTS

MANY DOUBTED US when we began. They may even say now, "I told you so", as momentum wanes and concentrations shifted. Nevertheless, we stand behind this work as our pride in the effort shall last well beyond the end of our professional careers. Few can claim, within the realm of state wildlife agencies, a 10-year plan was constructed, followed, and reported through its completion. Distractions, changes in leadership and staff, and the realities of fluid agency priorities break down the vision of plans. It takes extraordinary teams of people to generate accomplishments worthy of a report like this, and we are grateful for those that have sacrificed their energy, passion, and talent towards restoring bobwhite in the Commonwealth.

The heart of this report centered on our focus areas. Fortunately, those personnel remained surprisingly consistent throughout the 10 years. They include the following by focus area: 1) Bluegrass Army Depot – Tom Edwards and Marcia Schroeder, 2) Clay WMA – Nathan Gregory, Jacob Stewart, and Brian Wagoner, 3) Hart County – Chris Mason, Tyler Reagan, Jonah Price, and John Goodin, 4) Livingston County – Philip Sharp and Madeleine Pratt, 5) Peabody WMA – Eric Williams and Jarod Arnold, 6) Rockcastle WMA – Mike Strunk, and 7) Shaker Village – Don Pelly and Ben Leffew. These projects got the job done year in and year out. In the last few years, they endured diminishing budgets and staff. Yet, they forged ahead!

We had strong support from fellow statewide KDFWR staff helping us continue to march forward. Karen Waldrop was the stand alone administrator that was with us from start to finish. She helped jump start the work and made certain it didn't fall off the radar in the end. Commissioners Jon Gassett and Greg Johnson stepped up in national leadership roles. Other statewide Wildlife Division staff provided support for the effort throughout including Danna Baxley, John Brunjes, Terri Brunjes, Sunni Carr, Zak Danks, Dan Figert, Chris Garland, Wes Little, Ben Robinson, Kate Slankard, Gary Sprandel, Loren Taylor, and Keith Wethington. As all of our public facing products have shown, the work of Obie Williams and Adrienne Yancy brought the work to life with exceptional design and illustrations. Our KY Afield editor, Dave Baker, shared his shop's talents and told the restoration story through the magazine. Our KY Afield television crew also used their visual platform on multiple occasions including both hosts, Tim Farmer and Chad Miles.

Our partnerships also helped keep the work forward leaning. Dave Howell (Quail Unlimited/Quail and Upland Game Alliance) was steadfast supporter throughout. Jake Porter, Mac McCay, and Ed Schuman (Bobwhite Specialty Plate, LLC) were with us funding important projects. Great partners at NRCS supported us like Casey Shrader and Kate Little, among others. Brent Harrel with the U.S. Fish and Wildlife Service brought Partners for Fish and Wildlife dollars to the table and was always ready to assist. Science support through universities was critical including Pat Keyser and Craig Harper (University of Tennessee), Kristine Evans and Wes Burger (Mississippi State University), and James Martin (University of Georgia). Tremendous graduate students collaborated with us including Jarrod Brooke, Chris Lituma, Doug Mitchell, David Peters, Evan Tanner, Ashley Tanner, Andrew West, and John Yeiser. Our new University of Kentucky Extension Wildlife Biologist, Matthew Springer, jumped right in and dramatically accelerated our work with extension agents. Our friends at the National Bobwhite Conservation Initiative provided constant support and helped maintain the momentum as best they were able. They included Don McKenzie, Tom Dailey, and John Doty. Local chapters from Quail Forever were by our side as well especially the Southern Kentucky and Commonwealth Chapters. Our only home-grown native seed provider, Roundstone Native Seed, was a great part of our team under the leadership of John Seymour. As you can see, it takes an army!

Countless personnel chipped in along the way from our Wildlife Division. Our public lands, private lands, and Farm Bill staff helped under the direction of the Regional and Farm Bill Coordinators including Randall Alcorn, Derek Beard, Tony Black, and Scott Harp. When we asked, they helped! Great partners from The Nature Conservancy, KY Division of Forestry, KY Nature Preserves, and others joined up to round out our fire teams and were steadfast as we worked on prescribed fire legislation.

We had many champions along the way and we sincerely thank each and every one. When putting names to paper, you're all but certain to omit important players. But the lasting impression to take from these acknowledgements: this is not the effort of a few people. We needed more than mentioned herein. Success on the bobwhite and grassland habitat front will only be realized when communities of people embrace conservation. When those communities don't care who gets the credit, the tide will turn. The battle will be won; not just for themselves, but for the generations to come. We've started the ball rolling, but it's yet to start rolling downhill. Join the fight and let's keep pushing forward!

Ben Robinson photo

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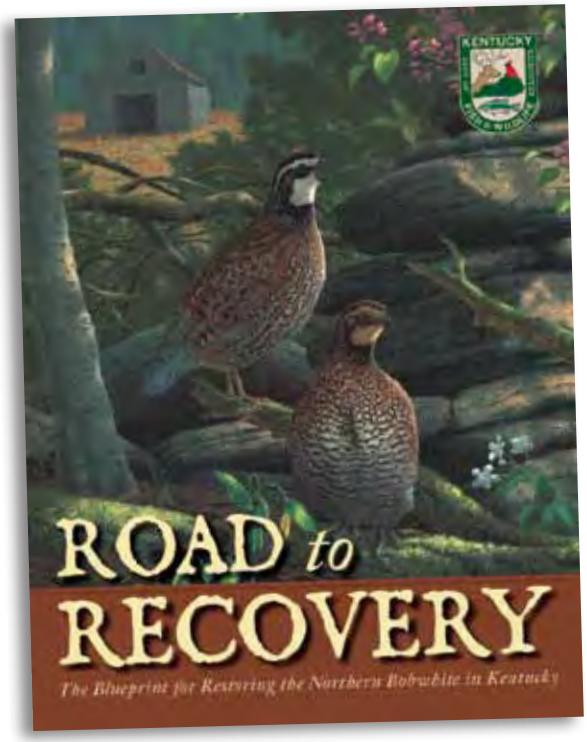

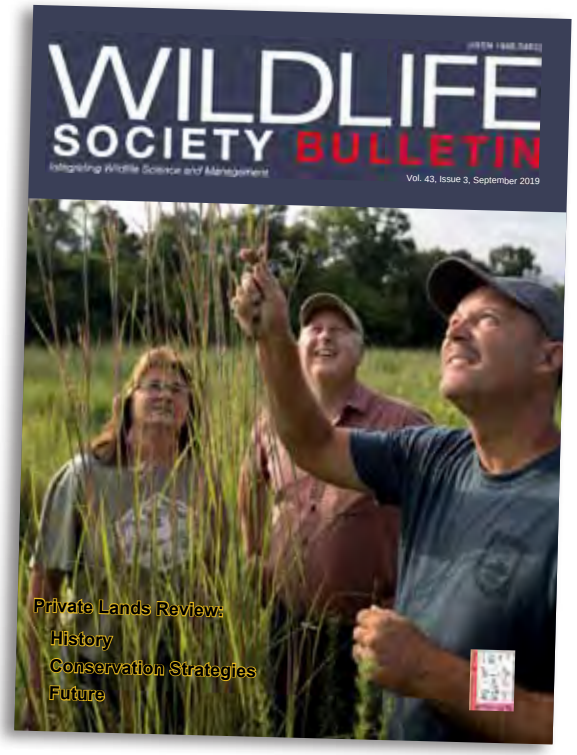

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HUNTING

Historic Shaker Village allows quail hunt • By Ben Robinson

Rare Opportunity

NESTLED IN THE gently rolling hills of Kentucky's Bluegrass Region, Shaker Village of Pleasant Hill has captivated visitors for decades. History and hospitality combine to create an experience abounding in the finest of southern tradition. This cultural National Historic Landmark appeals to all senses, featuring exceptional dining, peaceful accommodations, and outdoor pursuits like a refreshing hike or leisurely stroll via horseback.

History comes to life as visitors tour the well-kept grounds and learn about America's longest lasting communal society. Nearly 3,000 acres of tranquil countryside surround the village. Formerly a beef cattle operation, work is currently underway to create some of the finest bobwhite quail habitat found anywhere in Kentucky.

Beginning in 2009, the Kentucky Department of Fish and Wildlife Resources began working with Shaker Village to remove fescue grass from its fields. Fescue's acid-forming structure chokes out native vegetation and minimizes food sources for wildlife. Fescue also restricts the mobility of small animals.

To bring back the historical plant community, the conservation partners converted many of these fields to native warm season grasses and wildflowers. Other fields were burned under controlled conditions and seeded with herbicides in hope of releasing the suppressed native plants lingering in the soil.

In just one year, Shaker Village eradicated more than 700 acres of fescue and replaced it with valuable quail habitat. Work continues this year as land managers strive to convert all useable space to quality bobwhite habitat.

Prior to this habitat work, Shaker Village boasted a good population of wild bobwhite. Quail are responding quickly to this habitat work, as their melodic whistle now echoes across all corners of this remarkable property.

Most quail enthusiasts understand that superior habitat requires significant annual management. With management comes expense, and Shaker Village is faced with the reality of needing financial support to conduct maintenance on existing habitat. In an effort to generate a habitat management fund, Shaker Village agreed to provide a party of quail hunters with a rare opportunity: a chance to hunt this historic property.

The Kentucky Fish and Wildlife Foundation, in partnership with Ramsdome Seed, Quail Unlimited and Quail Forever, sold raffle tickets for this quail hunt, scheduled for Nov. 16-17.

Money raised by this raffle supported habitat management at Shaker Village. Many of the foundation's fund-raisers help fund displays at the Salato Wildlife Education Center in Frankfort, help send needy kids to summer conservation camps operated by Kentucky Fish and Wildlife, or cover other facilities at these camps.

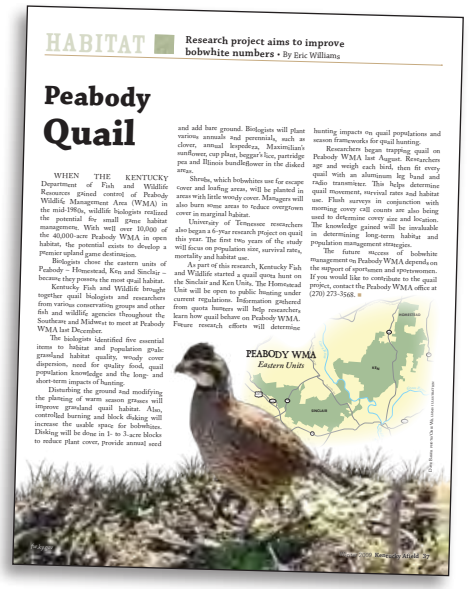
To learn more about drawings and events supported by the Kentucky Fish and Wildlife Foundation, visit their web site at www.kyfishwildlife.com.

Foundation raffles are also one of the few opportunities available to buy new collector series artwork by *Kentucky Afield* magazine artist Rick Hill.

An aerial view of Shaker Village.

Native plants replaced more than 700 acres of fescue in the fields around Shaker Village.

6 Kentucky Afield Fall 2010


HABITAT

Research project aims to improve bobwhite numbers • By Eric Williams

Peabody Quail

WHEN THE KENTUCKY Department of Fish and Wildlife Resources joined control of Peabody Wildlife Management Area (WMA) in the mid-1980s, wildlife biologists realized the potential for small game habitat management. With well over 10,000 of the 40,000-acre Peabody WMA in open habitat, the potential exists to develop a premier upland game destination.

Biologists chose the eastern units of Peabody – Homestead, Kva and Sinclair – because they possess the most quail habitat.

Kentucky Fish and Wildlife brought together quail biologists and researchers from various conservation groups and other fish and wildlife agencies throughout the Southeast and Midwest to meet at Peabody WMA last December.

The biologists identified five essential items to habitat and population goals: grassland habitat quality, woody cover dispersion, need for quality food, quail population knowledge and the long- and short-term impacts of hunting.

Disturbing the ground and modifying the planting of warm season grasses will improve grassland quail habitat. Also, controlled burning and block disking will increase the usable space for bobwhites. Disking will be done in 1- to 3-acre blocks to reduce plant cover, provide annual seed and add bare ground. Biologists will plant various annuals and perennials, such as clover, annual lespedeza, Maximilian's sunflower, cup plant, beggar's lice, partridge pea and Illinois bundleflower in the disked areas.

Shrubs, which bobwhites use for escape cover and loafing areas, will be planted in areas with little woody cover. Managers will also burn some areas to reduce overgrown cover in marginal habitat.

University of Tennessee researchers also began a 6-year research project on quail this year. The first two years of the study will focus on population size, survival rates, mortality, and habitat use.

As part of this research, Kentucky Fish and Wildlife started a quail covey hunt on the Sinclair and Ken Units. The Homestead Unit will be open to public hunting under current regulations. Information gathered from quota hunters will help researchers learn how quail behave on Peabody WMA. Future research efforts will determine hunting impacts on quail populations and season frameworks for quail hunting.

Researchers began trapping quail on Peabody WMA last August. Researchers age and weigh each bird, then fit every quail with an aluminum leg band and radio transmitter. This helps determine quail movement, survival rates and habitat use. Flush surveys in conjunction with morning covey call counts are also being used to determine covey size and location. The knowledge gained will be invaluable in determining long-term habitat and population management strategies.

The future success of bobwhite management on Peabody WMA depends on the support of sportsmen and sportswomen. If you would like to contribute to the quail project, contact the Peabody WMA office at (270) 273-3568.

PEABODY WMA
Eastern Units


ROAD to RESTORATION

A new path to bring back the bobwhite quail

By John Morgan

SINCE 1936, AUSTIN Musselman's family has farmed an 850-acre tract of land in Oldham County. Over time, the farm came to represent what is now commonplace in rural Kentucky: heavily grazed fescue pastures.

Musselman, who recalled the coveys of quail on the farm when he was a kid, wanted a return to the days of plentiful birds.

He also wanted to maintain the farm operation while improving habitat for bobwhite quail. He asked the Kentucky Department of Fish and Wildlife Resources for technical expertise to make the necessary enhancements. Chris Grasch, a private lands biologist for the department, was happy to lend a hand.

Together, Musselman and Grasch designed a patchwork of native warm season grasses, wildflowers, trees and shrubs covering more than 200 acres of the farm. State and federal money for wildlife habitat projects helped pay part of the cost.

The work paid off. Musselman started finding seven to 12 coveys of quail where once there were only two. He saw plenty of deer and turkeys. Musselman also spotted foxes, short-eared owls and a host of songbirds drawn by the habitat improvements. In short, he's been amazed by the wildlife response.

"Just putting away the bush hog makes a huge difference towards improving habitat," he said. "Getting past the scruffiness is the biggest thing."

Musselman tried grazing his cattle on the drought-resistant native grasses, then baling the plants for hay. The result? His cattle's weight gains are better than they've ever been.

Although Musselman enjoys a wildlife success story, it involves just one farm. Twenty years of focusing on individual farms through habitat programs is not having a large enough impact on the state's overall quail numbers. Additionally, past stocking efforts have shown no ability to restore quail.

To solve this problem, Kentucky Fish and Wildlife is proposing a revolutionary new quail restoration plan that focuses on an entire region rather than its pieces. Affecting a population of birds will take changes at a landscape level.

Although many programs focused on bobwhite quail over the years, never before has a full-blown restoration plan been penned and implemented. "Our commission is dedicated to bringing back the commonwealth's small game," said Kentucky Fish and Wildlife Commissioner Jon Gassett. "We've been tremendously successful with deer, turkey, elk and a host of other species. Through our strategic planning process, the sportsmen and women asked for more small game. We plan to deliver."

Consider Kentucky Fish and Wildlife's previous investments in deer, turkey and elk restoration. The focus of the entire department centered on those labors. The time has come for a focus on quail.

In the next 10 years, the department plans to focus on quail restoration in eight regions throughout the state. The key is expansive improvements in habitat. This will involve replacement of the shrub community, restoration of native prairie grasses and management of the land to increase bare ground. This is what bobwhite need for movement, feeding and reproduction. It's imperative to demonstrate that quail can be restored. Many naysayers exist. Success will breed success.

PAST RESTORATION FAILURES

Kentucky Fish and Wildlife has a long history of management aimed at small game, especially bobwhite quail. For more than 50 years, people called department headquarters, "The Game Farm." This is because managers raised more than 3.5 million quail on site, then released the birds throughout the commonwealth.

Kentucky hatched and released millions of quail in failed restoration attempts.

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THE Kentucky QUAIL PLATE

Visit your County Clerk and pick up a Kentucky quail plate.

Drive home your support for habitat restoration!

Rick Hill illustration

WHERE HAVE ALL the quail gone? They fell in the wake of modern agriculture, development, and society's desire for the manicured landscape. Row crop practices are much "cleaner" and larger-scaled. Small fields, weeds, bugs, and brambles are few and far between, and shrublands have matured to forestlands. Kentucky's native grasslands have been transformed to a sea of fescue while the mower decimates thousands of acres of potential habitat annually. The plight of quail is not the fault of the farmer, but that of human advancement. Farming has adapted to meet the demands of society. Society can adapt farming and land management through an investment in conservation, creating a better future for themselves and bobwhites.

Habitat is ROUGH around the Edges