Chesapeake Bay Program
Science. Restoration. Partnership.

Black Duck Outcome

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Black Duck Action Team Lead

Through the Chesapeake Bay Watershed Agreement*, the Chesapeake Bay Program has committed to…*

Goal: Vital Habitats Goal

Outcome: *By 2025, restore, enhance, and preserve wetland habitats that support a wintering population of 100,000 black ducks, a species representative of the health of the tidal marshes across the watershed.*

Why Black Ducks?

Photos USFWS

Where there are Black Ducks, there are…

Healthy Watersheds

- Less Shoreline Disturbance
- Good Water Quality
- Climate Resiliency

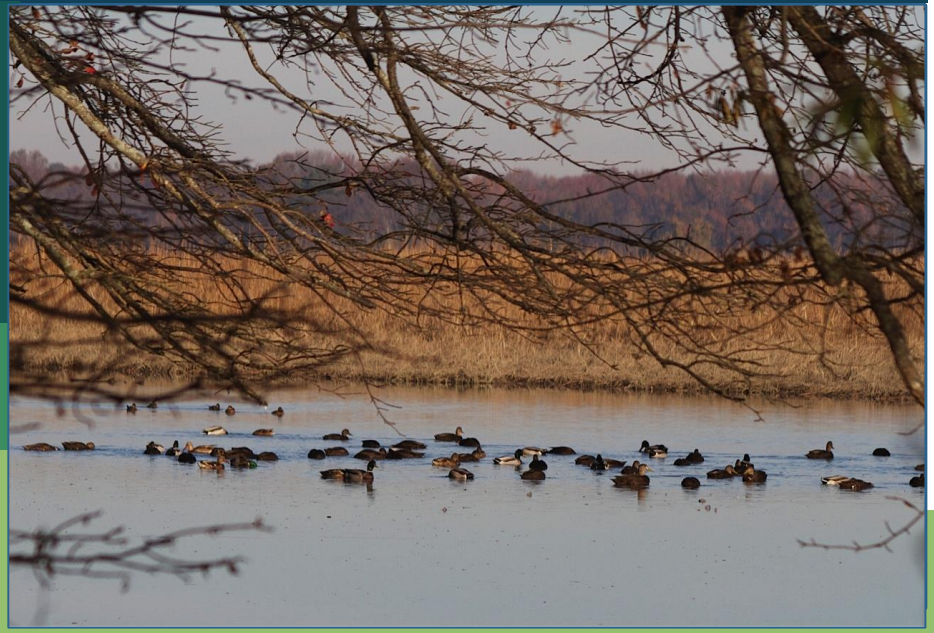
Healthy Habitats

- Wetlands
- Fish Habitat
- Bay Grasses

Baseline and Current Condition

- North American Waterfowl Management Plan (NAWMP) continental population goal of 640,000 Black Ducks
- Estimated that the CB watershed could support 100,000
- Mid-Winter Survey
  - 2007-2009: 37,158
  - 2009-2011: 47,269
  - 2011-2013: 41,907
  - 2012-2014: 48,828
  - 2013-2015: 51,332

What We Want



Support in applying the latest science to inform new habitat based Black Duck Outcome indicator

- Technical assistance with establishing a new baseline, acreage targets
- Assistance with Decision Support Tool outreach to decision makers
- Assistance with encouraging funding partners to prioritize use of Decision Support Tool
- Encouragement of strong partner coordination

1

Setting the Stage:

What are our assumptions?

Logic Behind Our Outcome

Following the Decision Framework:

Factors Influencing

- Habitat Degradation
- Scientific Research
- Technical Understanding / Implementation

Current Efforts and Gaps

- Location of opportunities for Habitat Conservation
- Need for Technical Assistance
- Scientific Research
- Carrying Capacity and Bioenergetics Modeling

Management Approaches

- Support Black Duck Habitat
  - Restoration
  - Enhancement and Management
  - Protection
- Other Conservation Actions Benefiting Waterfowl Habitat

2

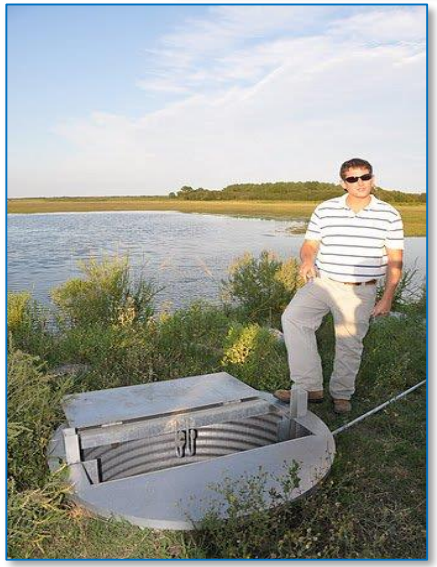
Progress:

Are we doing what we said we would do?

What is our progress?

Supporting Wetland Restoration, Enhancement, and Conservation Work

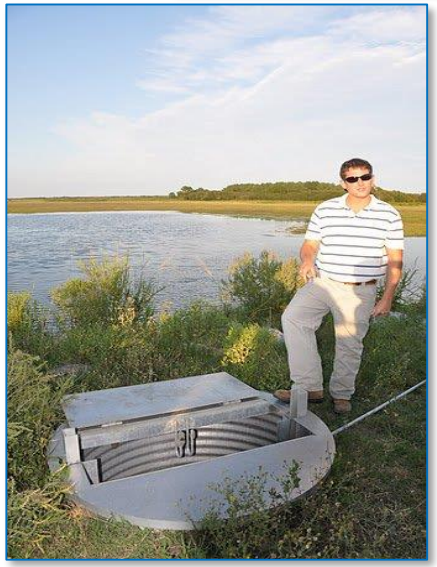
- NGO's
- States/Jurisdictions
- Federal Agencies



What is our progress?

GIT Funding

- Funding for NRCS Working Lands for Wildlife Technical Assistance Position
- Funding to complete Black Duck Decision Support Tool



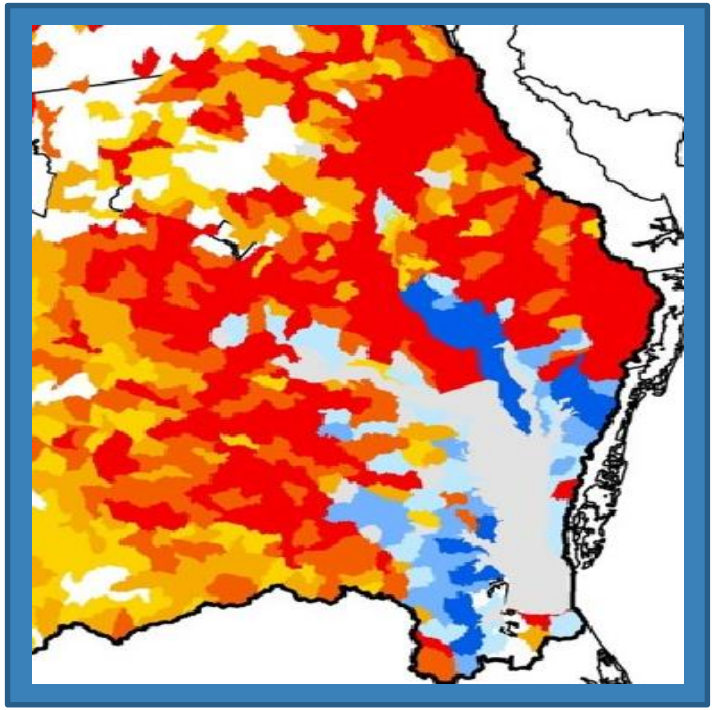
What is our progress?

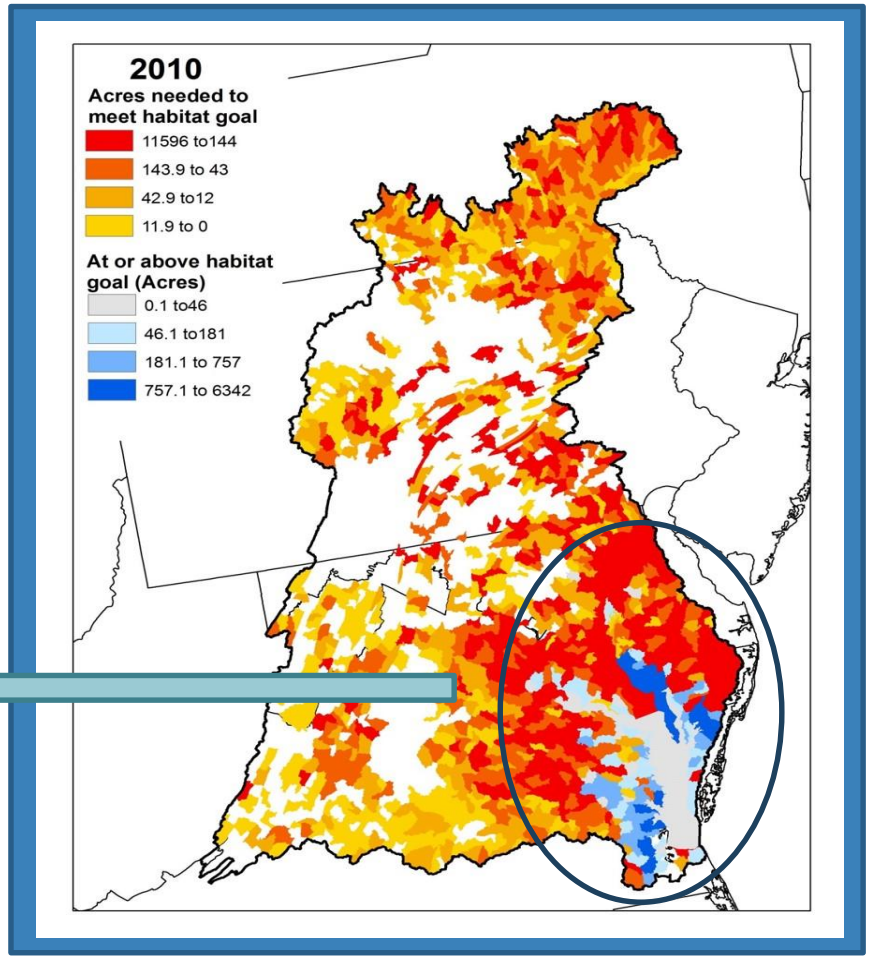
- Better science and tools to target habitat conservation and restoration
- Increased landowner outreach capacity
- Cross-outcome benefits (wetlands, climate change, shorelines, SAV, etc.)

Bioenergetics model and Black Duck habitat needs under future landscape condition maps complete.

Further evidence of SAV as important Black Duck food source.

Black Duck Habitat Needs Under Future Landscape Conditions





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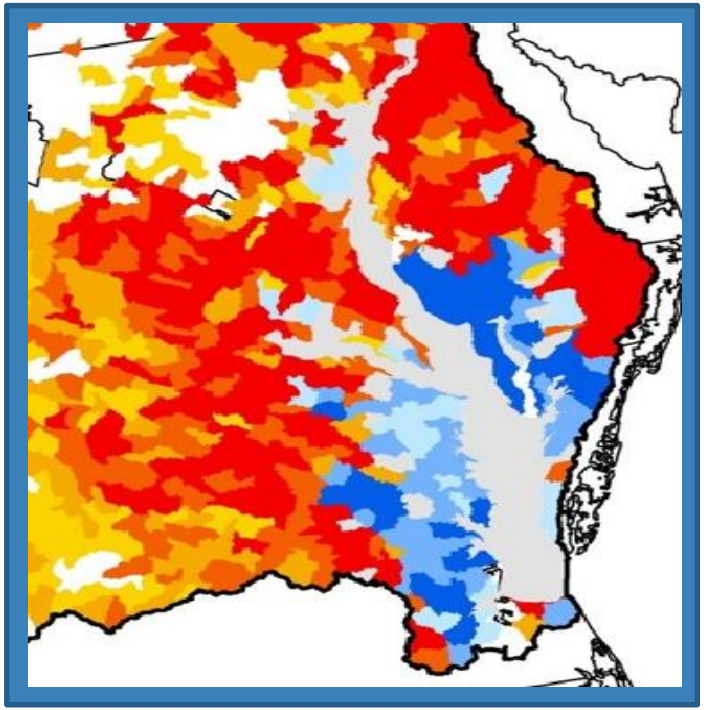

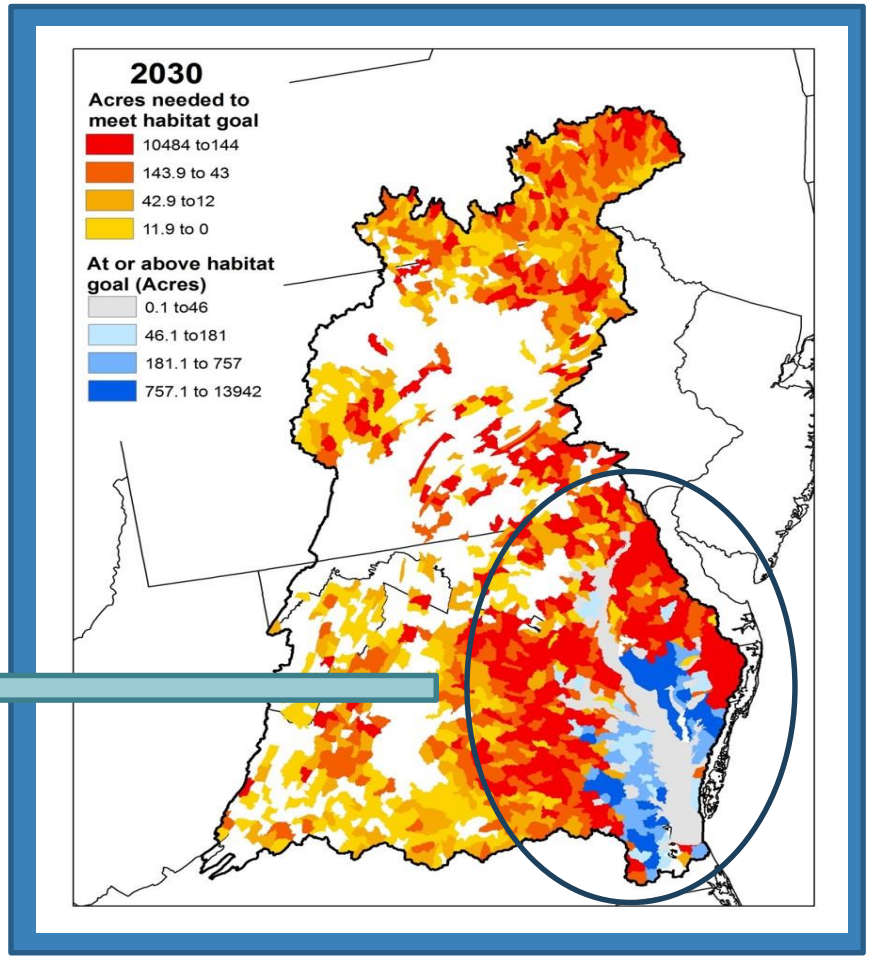

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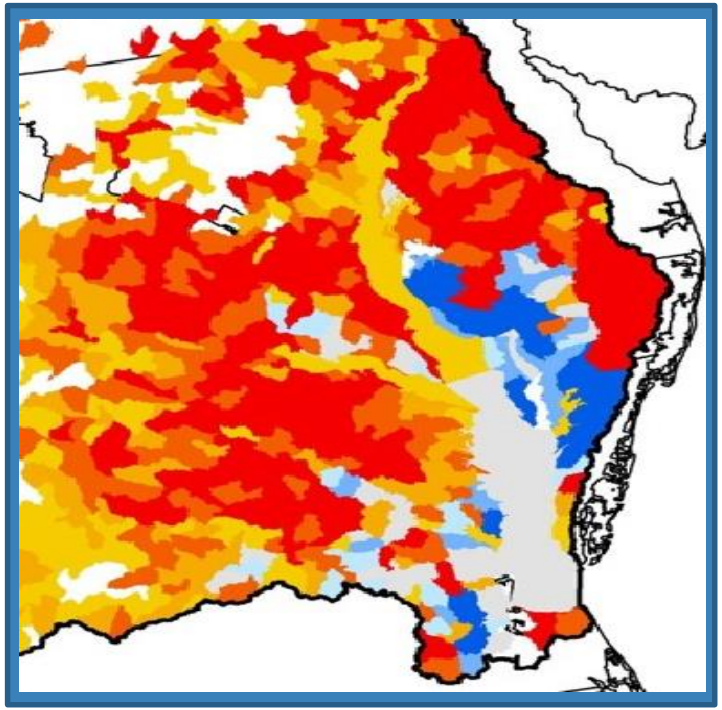
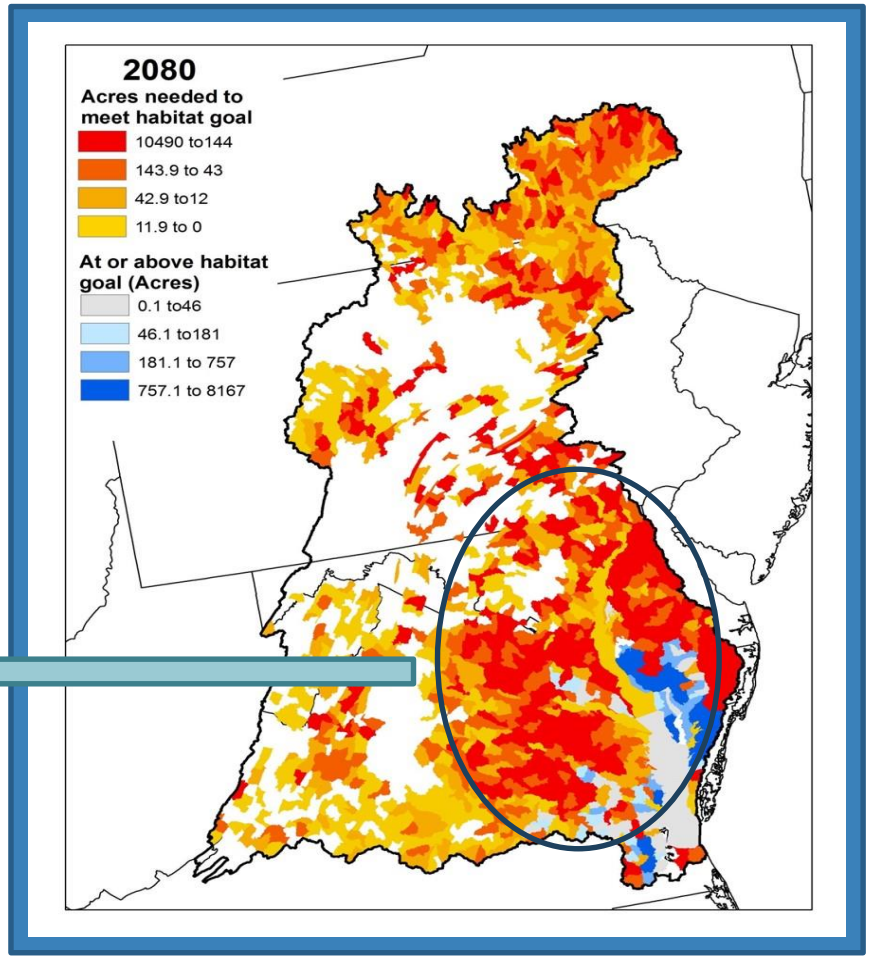
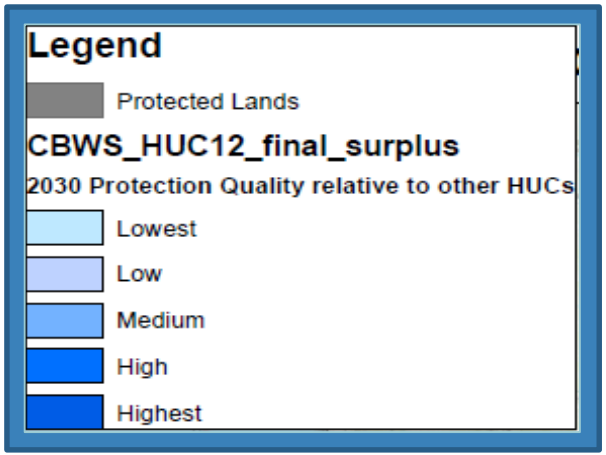
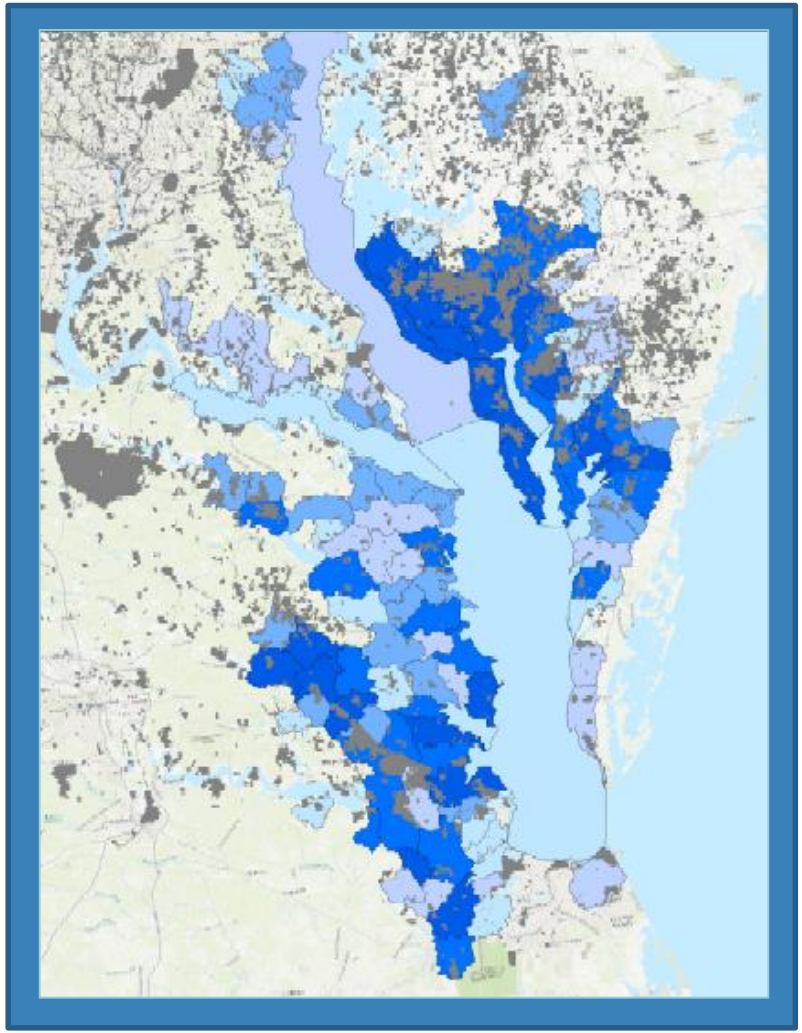




What is our progress?

Surplus HUC12s and Protected Lands





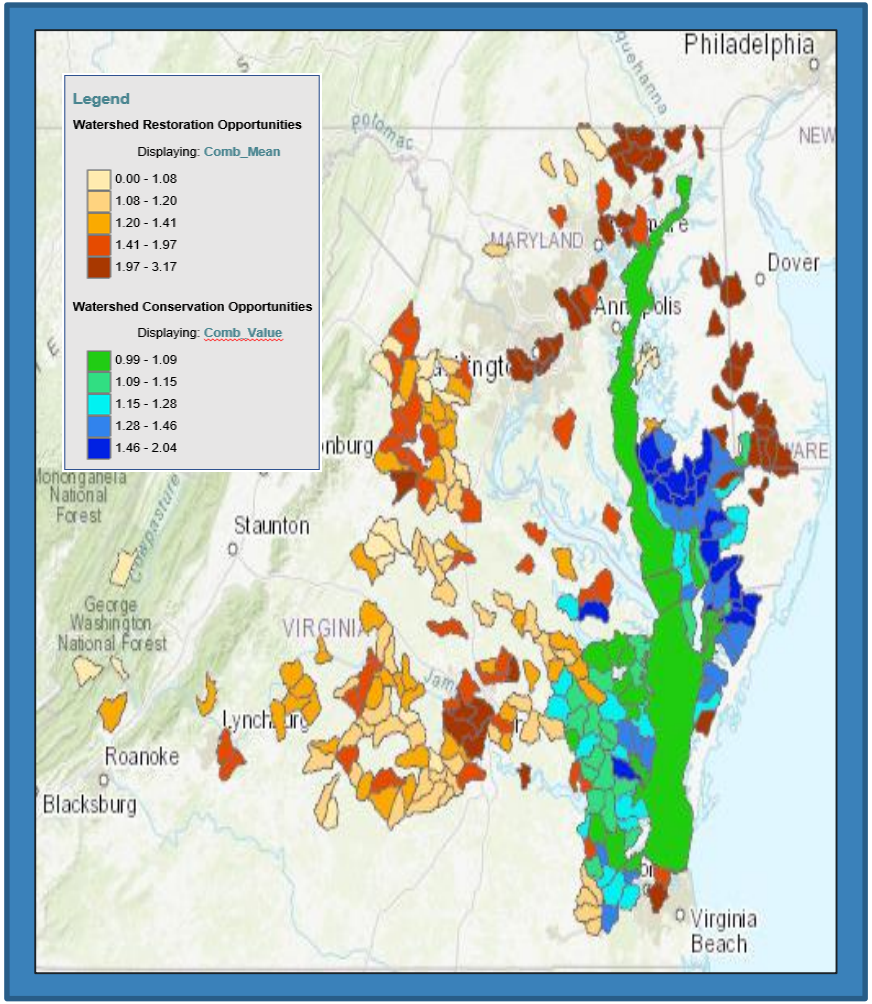
What is our progress?

CBP Cross-GIT Mapping Project – Black Duck Case Study Output

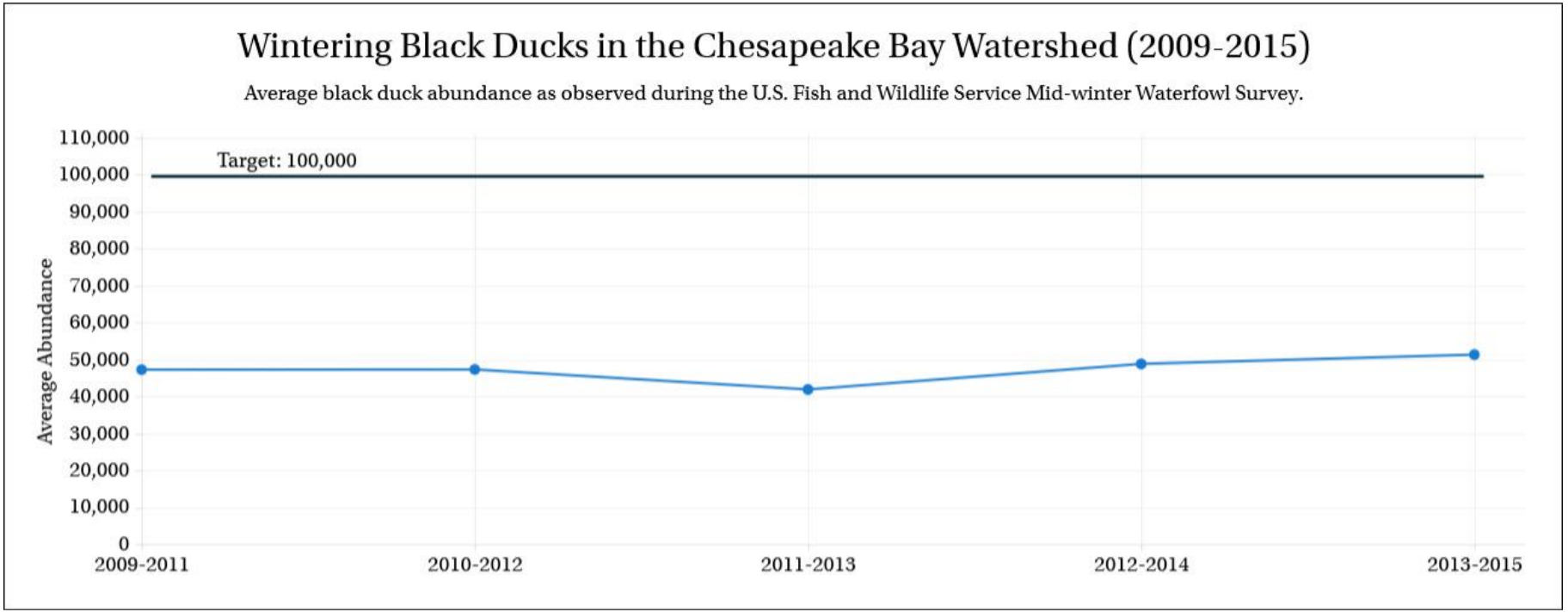
Restoration Metrics –
- Wetlands
- High pollution loading
- Marsh migration
- Low food availability

Conservation Metrics –
- Wetlands
- Healthy Watersheds,
- High food availability
- Marsh Migration

Brown (restoration) and **Blue** (conservation) = Higher co-benefit potential



Are we on track?



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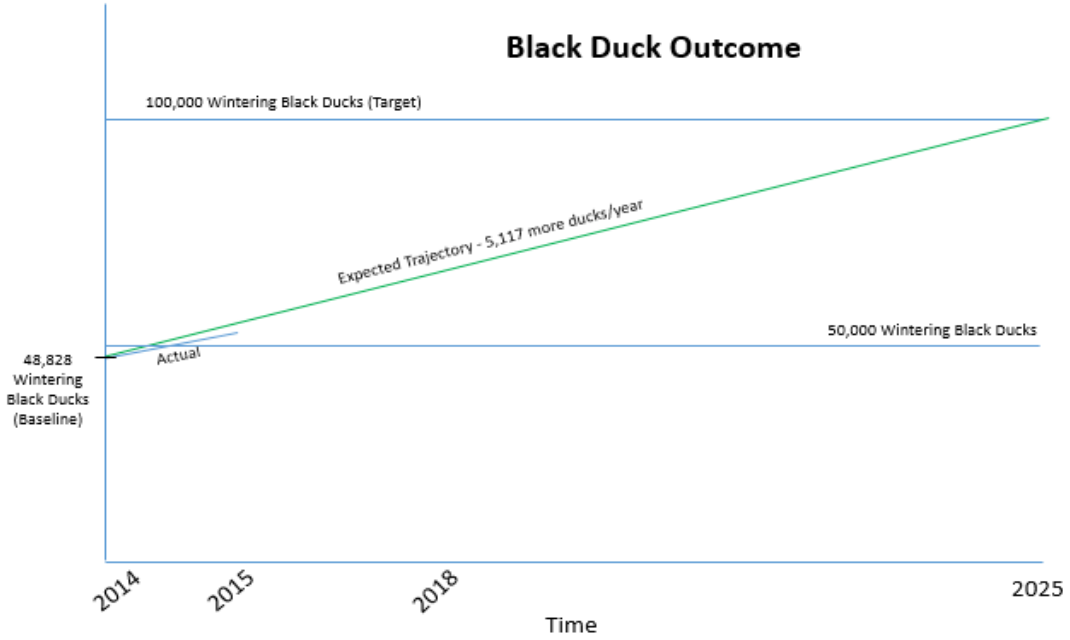


Indicator Status

- As of 2015, the Black Duck Outcome stands at 51% of it's 100,000 bird goal.
- CBP has not received Watershed population data since 2015 as USFWS no longer maintains survey data.

A habitat based indicator would be more reflective of true outcome progress.

Are we on track?

The Nature Conservancy
Protecting nature. Preserving life.™

Reach out to Partners to Track Conservation Acres

USDA NRCS
U.S. Department of Agriculture
Natural Resources Conservation Service

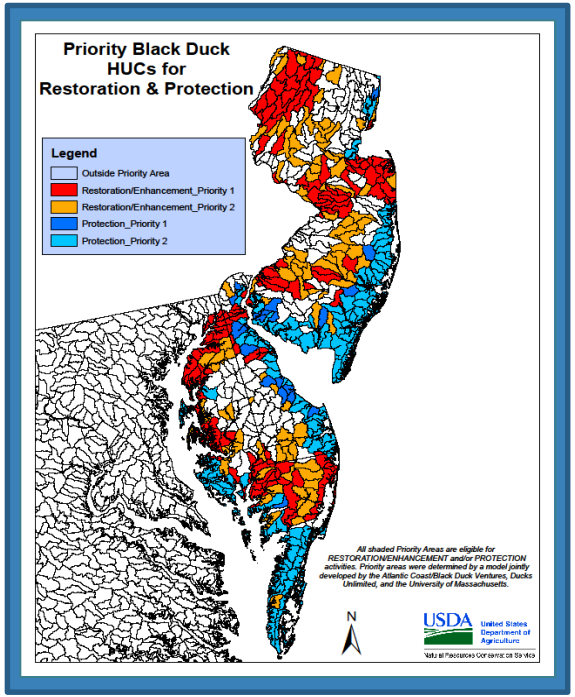
DUCKS UNLIMITED

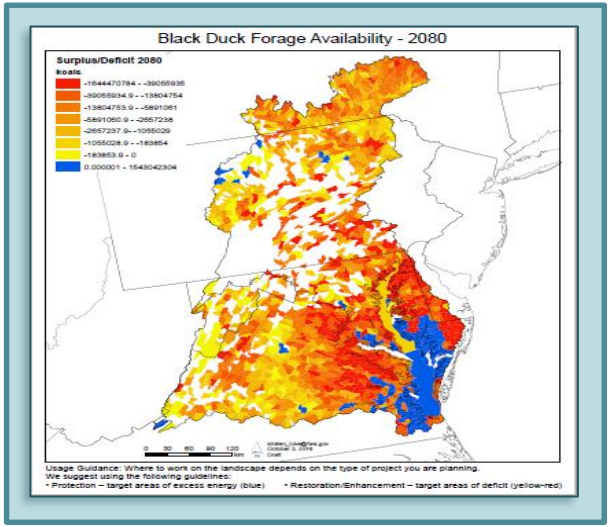
VIRGINIA DGIF
DEPARTMENT OF GAME & INLAND FISHERIES
CONSERVE. CONNECT. PROTECT.

MARYLAND DEPARTMENT OF NATURAL RESOURCES

U.S. FISH & WILDLIFE SERVICE
DEPARTMENT OF THE INTERIOR

Analysis: Actions critical to progress thus far





Completion of the bioenergetics model and map outputs

Analysis: Actions critical to future progress

Using the DST maps to determine the best locations for restoration, enhancement, and management of habitat for black ducks.

Determining Acreage Component to Black Duck outcome. I.e. how many acres of habitat would we need to reach our goal

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Challenges:

Are our actions having the expected effect?

Challenges

- Determining wetland, SAV acreage goals for Outcome
- Getting the Decision Support Tool map in user friendly format
- Conservation partner training and use of Decision Support Tool
- Diminished funding and resources (i.e. Mid-winter Survey)

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Adaptations:

How should we adapt?

Based on what we've learned, we plan to…

- Adopt new habitat based Black Duck Outcome indicator using bioenergetics model
- Articulate wetland, SAV acreage component to the Black Duck Outcome
- Develop a priority list of Sub-watersheds/state for conservation and restoration (25th Percentile Map)
- Improve coordination with partners and local agencies

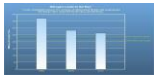
Co-Benefits

Sustainable Fisheries

- Blue Crab Abundance
- Blue Crab Management
- Oyster
- Forage Fish
- Fish Habitat

Vital Habitats Goal

- Wetlands
- Black Duck
- Stream Health
- Brook Trout
- Fish Passage
- Submerged Aquatic Vegetation (SAV)
- Forest Buffer
- Tree Canopy



Water Quality Goal

- 2017 Watershed Implementation Plans (WIP)
- 2025 WIP
- Water Quality Standards Attainment and Monitoring

Toxic Contaminants Goal

- Toxic Contaminants Research
  Toxic Contaminants Policy and Prevention

Healthy Watersheds Goal

- Healthy Waters

Stewardship Goal

- Citizen Stewardship
- Local Leadership
- Diversity

Land Conservation Goal

- Protected Lands
- Land Use Methods and Metrics Development
  Land Use Options Evaluation

Public Access Goal

- Public Access Site Development

Environmental Literacy Goal

- Student
- Sustainable Schools
- Environmental Literacy Planning

Climate Resiliency Goal

- Monitoring and Assessment
- Adaptation Outcome

What We Want

Support in applying the latest science to inform new habitat based Black Duck Outcome indicator

- Technical assistance with establishing a new baseline, acreage targets
- Assistance with Decision Support Tool outreach to decision makers
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Discussion