Black Duck Action Team Meeting
Monday, July 17th 1-3pm

Participants

Present

Jennifer Greiner (Coordinator), USFWS
Ben Lewis (Lead), VA DGIF
Paige Hobaugh (Staff), CRC
Jake McPherson, DU

Remote

Tim Jones USFWS
Paul Padding, USFWS
Mitch Hartley, USFWS
Mike Slattery, USFWS
Josh Homyack, MD DNR
Anna Hamilton, Tetra Tech
Mike Burke
Margaret Enloe, Waterfowl Chesapeake

Action Items

Action: Ben will work with Tim to obtain refined 25th percentile surplus and deficit maps of each of the watershed states to have state representatives (and other restoration partners) identify priority areas.
Action: BDAT will work to get PA, VA, and NY DU and State representatives to attend the next meeting to involve them with priority restoration map process.
Action: Ben will reach out to VA DU representatives to inquire about land protection efforts.
Decision: BDAT will remove Key Action 8 from the Black Duck Outcome Workplan.
Action: Mike Slattery asks that permitting applicants make record of their experiences (could inform future policy changes).
Decision: BDAT will remove Key Action 9 from the Black Duck Outcome Workplan.
Decision: BDAT will remove Key Action 10 from the Black Duck Outcome Workplan.
Action: Paige will send Matrix to Ben.
Action: Ben will reach out to Chris to confirm he is aware of the GIT Funding proposal bidding process.

Decision Support Tool/Bio-Energetics Model – Tim Jones (USFWS)

The modeling team is working to validate and error check the model code and update the model with the change in population goals as approved by the Atlantic Coast Joint Venture (ACJV) Technical Committee (will use 80th percentile; higher goal to work toward, more conservative number). The team is also working to develop a prioritization scheme for HUC12 watersheds (with respect to restoration and enhancement) based on the number of additional acres necessary to meet population goals and for the acquisition of surplus HUC12 watersheds– expected late summer or early fall. The team currently has prioritized (by decile) maps that show the number of acres that are needed to meet population goals in each Chesapeake Bay Watershed HUC. The team used this tool to prioritize for a NFWF Grant proposal to explore project level resolution and prioritization.

The model team can provide a list of HUC numbers/names; they just need to know exactly what the team wants. The model team is moving toward a separate protection and restoration approach, with the possibility of depicting both scenarios on same map or on separate maps. This information will be able to inform the CBP's Cross-GIT efforts. Jennifer sees the next step in the process being to make the information easy to understand and to release it to as many partners as possible.

Work Plan Updates

Management Approach 1: Restore degraded wetlands or vegetation in areas where black ducks have historically bred or wintered.

- *Key Action 1: Complete energetics models for several USFWS Refuges that will help define food availability for black ducks. Scientists will forecast the potential loss of habitats from sea level rise and development to better understand food availability changes in the face of these two potential habitat stressors.*

  Alicia is charged with this; she says the energetics layer has been created and we are in the process of incorporating the two models of sea-level rise and land change now. This project should be completed by the end of this calendar year.

  USGS's budget situation will force them to focus on work directly called for in their mission. They will likely be able to contribute to projects like this, but it is important to be aware of the uncertainty of this situation.

- *Key Action 2: Develop a decision support tool (DST) to estimate wintering black duck habitat needs under current and future landscape conditions throughout the ACJV and the Atlantic Flyway and scale it to the Chesapeake Bay Watershed, and incorporate maps to show target areas.*

  a) *Performance Target 1: Determine location and acreage of black duck winter habitat within respective jurisdictions for acquisition*
  b) *Performance Target 2: Prioritize black duck winter habitat based on profitability and vulnerability*

  This action is complete. The next step is to help translate the DST for use by restoration practitioners.

- *Key Action 3: Use the decision support tool to determine best places to do restoration, enhancement, management of key wetland or upland habitat for wintering, breeding or migrating black ducks*

  a) *Performance Target 1: Identify 3-4 key areas for partners to concentrate acquisition/restoration efforts*

  To determine priority areas, the team should ask state representatives (and other restoration partners) to consider the deficit/surplus map and compile a more specific list of priority areas. No map depicting 25th percentile surplus HUC12s exists. The model accounts for black duck abundance, so it may not be necessary to remove "non-traditional" black duck areas. The model team can provide numbers/location of high surplus and deficit to help identify priority areas after updating the model

  Action: Ben will work with Tim to obtain refined 25th percentile surplus and deficit maps of each of the watershed states to have state representatives (and other restoration partners) identify priority areas.

- *Key Action 4: Restore tidal wetland hydrology and restore key habitat for breeding, migration routes and wintering grounds.*

  a) *Performance Target 1: Continue/enhance restoration efforts in known black duck areas*
  b) *Performance Target 2: Use decision support tool to identify new priority locations*

Ducks Unlimited: Has been doing fresh emergent wetland restoration on ag land in Maryland's Midshore area for the past 4-5 years, will continue work there for another 3-4 years with the help of a Chesapeake and Atlantic Coastal Bay Trust grant. All work is done free of cost to landowners. DU has 2 large projects coming up at Blackwater NWR restoring about 100 acres of agriculture to moist soil impoundments; funded by NAWCA grant.

Virginia: Not currently doing any restoration work. VA DGIF met with NRCS, will help them prioritize projects for Working Lands for Wildlife. DST will be a great tool for them to use in the future. Working on an enhancement project at Doe Creek WMA (berm rehabilitation).

Maryland: Working on enhancement of freshwater impoundments at Wye Island NRA in Queen Anne's County. It had issues receiving water; money was spent to make the well operational. It will be a moist soil impoundment. MD is working on a Deal Island WMA moist soil impoundment project; other possible projects exist in Cecil County.

Action: BDAT will work to get PA, VA, and NY DU and State representatives to attend the next meeting to involve them with priority restoration map process.

Management Approach 2: Enhance and manage wetlands or vegetation in areas where black ducks have historically bred or wintered.

- *Key Action 5: Improve water level management on managed wetlands (replace compromised water control structures, leaking levees, etc. to improve management capability), restore SAV or converted wetlands, manage open marsh (to restore non-tidal waters back to salt marsh, for example), restore and manage riparian buffers, etc.*

  a) *Performance Target 1: Enhance and manage priority habitats as identified by the support tool (how many water control structures replaced or installed, acres of habitat made available/enhanced, etc.)*

  Virginia: Working on 2 large water level management projects: Princess Anne WMA (complete) – water control structure, Hog Island WMA (future project) – rice trunk replacement.

  Ducks Unlimited: Restored 60 acres of wetland at Blackwater NWR in 2014 to address water management issues. Currently restoring additional 50 acres that show up on NWI as wetlands; installing new structures, leveling out the interior, enabling moist soil management.

  Maryland: Doing restoration work at Deal Island – monitoring water levels to regrow SAV inside the impoundment. DU is a partner on this project.

Management Approach 3: Protect wetlands or vegetation in areas where black ducks have historically bred or wintered.

- *Key Action 6: Protect key black duck habitats via long term protection actions such as fee title acquisition, conservation easements, cooperative agreements, or leases.*

  a) *Performance Target 1: Prioritize known black duck areas for protection*

  Will use surplus bio-energetics model map to begin working on this.

b) *Performance Target 2: Develop a NFWF proposal to provide assistance to partners in protection actions listed here*

McPherson: DU was awarded a NAWVA grant for covering the transactional costs (e.g. appraisals) of land acquisition; no funding can be used for acquisition itself. Purpose is to incentivize donations. purchased easements for several properties either donated or were purchased with funding from other partners. The effort is currently stalled due to timing issues with funding distribution (donors have backed out) – it is difficult to keep landowners engaged while waiting. Prioritization work becomes less valuable as donors drop out, though the number one prioritized property still intends to follow through. So far, 2,500 acres have been protected on the lower shore through easements.

c) *Performance Target 3: Protect priority habitats as identified by the support tool (acres of coastal marsh, forested wetlands, etc. protected)*

Ducks Unlimited: DU just finished with a NAWCA grant in Delaware; put 700 acres into protection, some of which fall within the Chesapeake Bay Watershed (CBW). The easements were done in conjunction with a land trust. DU helps fund them, but aren't actively taking on easements in this region (not out of the question, though).

Virginia: Several land trusts in the state hold easements. Has acquired a new tract of land on the York River called Ware Creek WMA; will put 2,500 acres in protection. There are upcoming salt marsh protection opportunities.

Maryland: State has been active in purchasing properties over the past 7 years and purchasing efforts seem to be increasing. Has purchased/designated 2-3 new WMAs in the past 5 years on the upper shore. There is the possibility of designating another one soon. The state gains more land to manage, but personnel has remained the same or has diminished – becoming more difficult.

Action: Ben will reach out to VA DU representatives to inquire about land protection efforts

Management Approach 4: Ensure appropriate planning tools and technical support are available at the local level

- *Key Action 7: Keep local officials engaged and informed. (use Cross-GIT coordinator to figure out how/if that is reflected in Local Leadership Workplan.) - healthy watersheds?*

  a) *Performance Target 1: Communicate with Local Leadership Workgroup to discuss extension program or inclusion of decision support tool into LLW's content.*

  The team must work out a way to feed model outputs into CBP Cross-GIT mapping efforts. DU's NFWF grant is supposed to help push the DST to local planners. Working Lands for Wildlife can also assist with this effort.

- *Key Action 8: Review regulations and permitting processes regarding wetland protection, restoration, and management to streamline planning and development of conservation actions.*

  DU has tried to begin addressing regulation and permitting process review – getting permits is a difficult process. Reviewing regulations and permitting processes does not reflect the charge of the Black Duck Action Team (BDAT).

  Decision: BDAT will remove Key Action 8 from the Black Duck Outcome Workplan.

Action: Mike Slattery asks that permitting applicants make record of their experiences (could inform future policy changes).

- *Key Action 9: Evaluate the effects of possible hybridization and disease transmission from captive-bred released waterfowl. Track predator management programs that may benefit wintering or breeding black duck populations.*

  Maryland: State conducts no predator management.

  Virginia: State is always evaluating the threat of hybridization; it is a potential issue, a potential cause for decline in black duck abundance. State sees transmitted diseases as a non-issue. Conducts predator management program on barrier islands.

  Decision: BDAT will remove Key Action 9 from the Black Duck Outcome Workplan.

- *Key Action 10: The Chesapeake Bay Commission (CBC) will work collaboratively with the Bay Program partners to identify legislative, budgetary and policy needs to advance the goals of the Chesapeake Watershed Agreement. We will, in turn, pursue action within our member state General Assemblies and the United States Congress.*

  This is placeholder language included in each outcome's Workplan. The CBC works to influence policy decisions at a regional (beyond single states) level.

  Decision: BDAT will remove Key Action 10 from the Black Duck Outcome Workplan.

The Citizens Monitoring Cooperative created an indicator matrix highlighting overlaps between Workplan action items and opportunities for citizen monitoring. BDAT has been encouraged to review the document and identify where it applies to any of the members' work.

Action: Paige will send Matrix to Ben.

Climate Resiliency Matrix- Anna Hamilton

Climate Resiliency WG's project to try and find a structured way to bring climate change considerations into CB restoration planning and activities. Part of that, workshop held last fall; a few results- good to have structured process at action level cb you often have to have specifics (e.g. site and method) to determine how climate change would interact, but also want to be able to revise activities at all levels. First order of business was to expand the matrix and the questions asked to three levels, intended to lead the wg through the information necessary to make a certain action climate smart.

- *Step 2: Category 1 Considerations: Climate Change effects on stressors and systems*

  a) *What are the main stressors, environmental factors, or other drivers impacting the target resource addressed in the goal?*

     Bullet 2: Sea level rise (and to an extent, ditching) contributes most to salt marsh loss/conversion to open water. Permitting requirements would not allow land use to be a factor in salt marsh loss. Land use falls under Bullet 3.

  b) *What are the key climate change impacts or influences directly affecting the resource (direction, magnitude, mechanism, uncertainty)?*

     Bullet 4: Grid ditch marshes contribute to loss of sediment that would have been retained otherwise, but not primary driver.

- *Step 3: Category 2 Considerations: Climate Change implications for goals*

  a) *How will climate change impacts on the target resource(s) affect the quality or quantity of the resource(s)?*

  Bullet 1: A decrease in temperature causes an increase in metabolic need. Bullet too far into the weeds.

- *Step 4: Climate-Designed Goal*

  a) *Climate Smart Goal/Outcome*

  Maps are showing loss of available energy on the landscape over time due to urban growth and sea level rise; 2 metrics considered by energetics model. Climate change consideration is often a factor addressed in grant application processes.

2017 GIT Funding Process

Each year, the CBP provides a funding opportunity for small GIT projects ($25k-75k) that would help bridge information gaps in support of Bay Program Outcomes. Each GIT typically receives funding for only 2-3 projects. This year, a pot of around 900k will be split amongst the 6 GITs and the Climate Resiliency Workgroup, with coordinators and staffers ranking each proposal and deciding what to move forward for funding. Each successful proposal will be open to bids by the public. Two proposals supporting the black duck outcome have been submitted for consideration by the Habitat GIT.

1. Targeted Outreach for Wetland Protection and Restoration
   PI: Mitch Hartley, USFWS

   This project will build on previous GIT investments and address the highest priorities in both the Wetland (Management Approach 5-7) and Black Duck Action Team (Key Actions 1-4) Workplans, by incorporating the Black Duck Decision Support Tool, Landowner Attitudes Survey and Outreach Materials developed under the Habitat GIT to pilot targeted outreach approaches that increase wetland protection and restoration efforts on private lands in key watershed focus areas. This project is a priority of and will benefit ongoing efforts of multiple partners in the watershed including USWFS, TNC, NRCS, and DU. The main goal is to increase the enrollment of private landowners in wetland conservation programs, both for permanent protection (e.g., conservation easements) and restoration. We will hire a part-time (30 hrs/wk) contractor for two years to engage private landowners, and conservation partners/practitioners interested or involved in wetland protection and restoration on a subset of counties on the Delmarva Peninsula. Outreach will be carried out through a research framework that will allow us to evaluate various methods of effecting landowner interest and enrollment in NRCS (through the Working Lands for Wildlife Initiative) and other programs available, to improve efforts to address barriers to enrollment that have been identified previously.

2. Quantifying Wintering Mid-Atlantic Black Duck Occupancy Dynamics as a Function of Landscape Composition
   PI: Christopher Williams, University of Delaware

   The ACJV and BDJV recently created a DST based on a bio-energetics model that assumes energy availability can limit population growth through direct effects on non-breeding survival. Despite recent advances in black duck ecology and management, we lack a synthetic understanding of

black duck habitat use during the wintering period. This is important from a management perspective, because although we can quantify the amount of habitat available on the landscape, some habitats may not be used by black ducks, leading to an overestimate of carrying capacity. The current version of the DST is driven primarily by habitat quantity (i.e., size and average energetic capacity of wetland types) with limited consideration of quality. However, the energetic capacity of individual wetlands, and thus the landscape, may be modified by characteristics such as patch size, connectivity, and isolation that influence black duck habitat selection. Understanding how these characteristics influence black duck habitat use and carrying capacity can improve our ability to target habitat acquisition and restoration in areas that maximize both habitat quantity and quality. Between Dec-Mar, 2017-19 (although depending on funding this may need to be pushed back to 2018-2020), we will conduct three replicate surveys per year at 60 points (120 over 2 years) to sample the presence of black ducks and other dabbler species in the Chesapeake Bay Watershed. We will estimate site occupancy and detection probability and we will model black duck occupancy to further refine the DST.

Action: Ben will reach out to Chris to confirm he is aware of the GIT Funding proposal bidding process.