

# Black Duck Decision Support Tool and Outcome Indicator

Habitat GIT Meeting – Spring 2019



Atlantic  
Flyway

# Purpose

Create a decision support tool (DST) to estimate black duck habitat needs under current and future landscape conditions to guide strategic habitat conservation by Atlantic Coast Joint Venture (ACJV) and partners in the Chesapeake Bay Watershed.

# Black Duck Habitat Status

- Over 50% black duck population decline between 1955 and 1990s
- Primary causes for losses of habitat and degradation included agriculture, timber operations, environmental contaminants, introduced predators, and urban growth
- **Urbanization** and **sea-level rise** due to global climate change probably pose the greatest **future risk** to black duck habitat in ACJV region

# Goals and Outcomes

**ACJV Black Duck Goal:** Provide sufficient *habitat to support 1,002,454 wintering ducks*

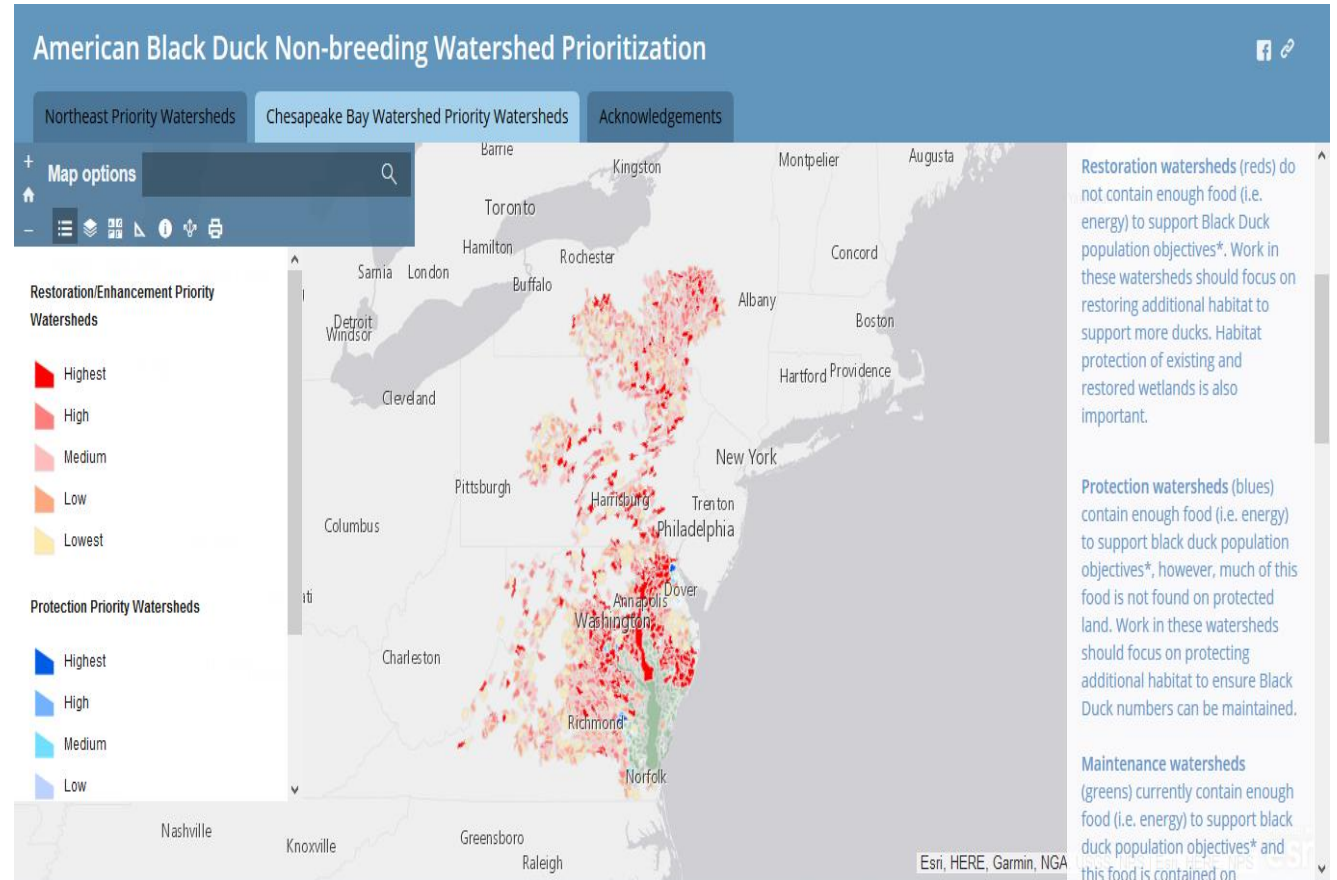
**CBP Black Duck Outcome:** Restore, enhance and preserve *wetland habitats that support a wintering population of 100,000 black ducks*

# Energetic Balance Results

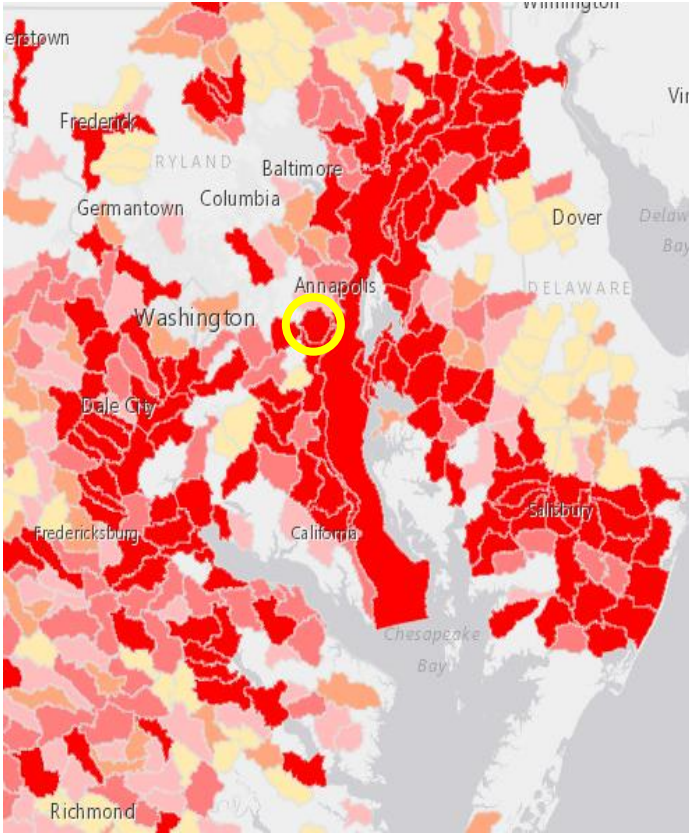
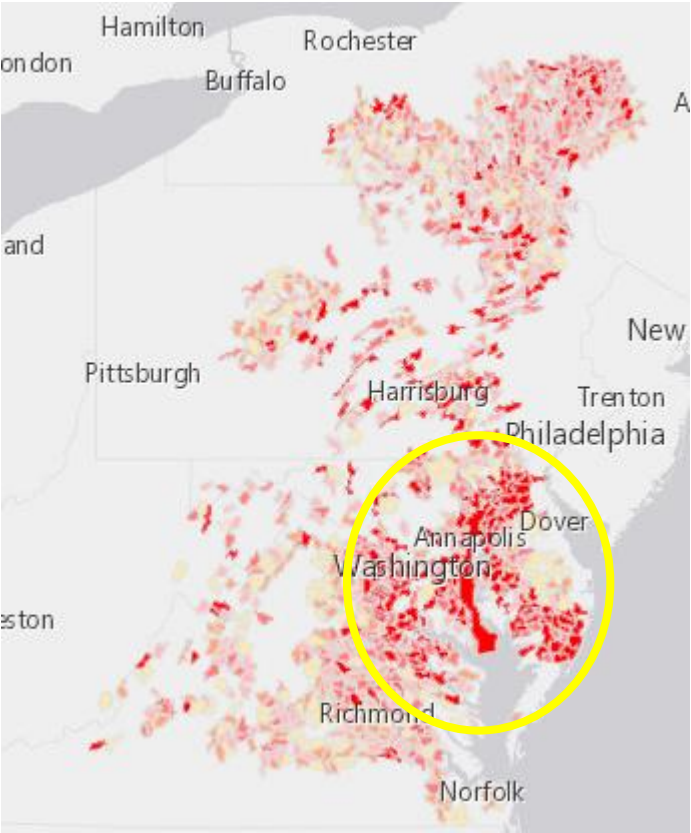
**Table 4. Habitat goals to meet 2012 NAWMP population objectives for the Chesapeake Bay Watershed. Goals are presented in hectares and acres in parentheses.**

Year	Low CL	Habitat Goal	High CL
2010	35,400 (87,439)	61,244 (151,272)	226,860 (560,344)
2030	32,426 (80,092)	56,098 (138,562)	207,799 (513,263)
2080	35,364 (87350)	61,182 (151,118)	226,630 (559,775)

# Tool Demo



# Restoration/Enhancement HUC12s



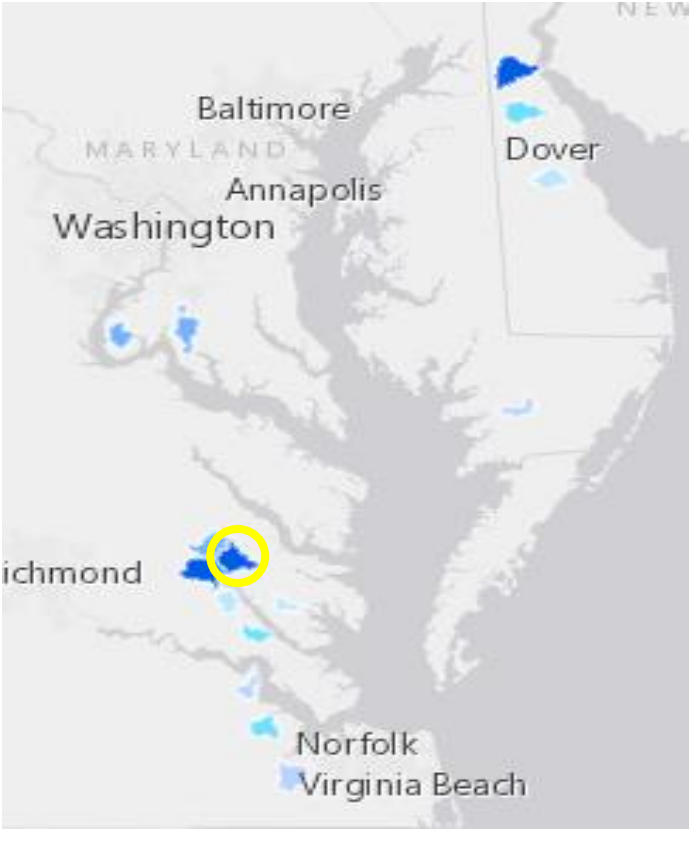
Map options

Restoration/Enhancement Priority (1 of 2)

Restoration Enhancement Priority HUCs

STATES	MD
HUC12	020600040401
NAME	Rhode River-West River
HUC type	deficit
Restoration Goal (Hectares)	60
Restoration Goal (Acres)	148
Restoration Priority (Percentile Rank)	20
Restoration Rank	Highest

# Protection HUC12s



Map options

Restoration/Enhancement Priority

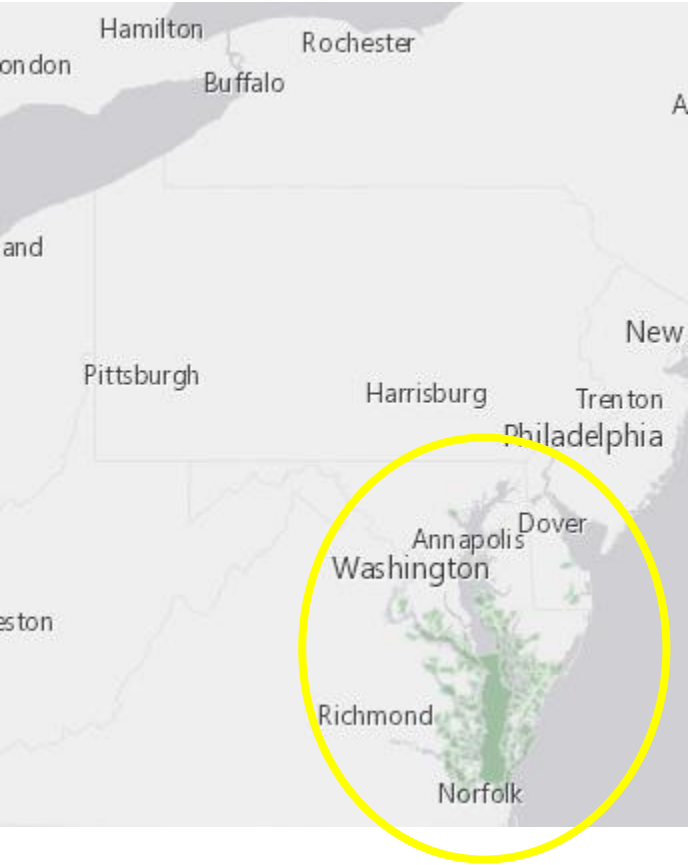
Watersheds (1 of 2) 151

Protection Priority HUCs

STATES	VA
HUC12	020801050604
NAME	Cabin Creek-Mattaponi River
HUC type	surplus
Protection Goal (Hectares)	92
Protection Goal (Acres)	227
Protection Priority (Percentile Rank)	20
Protection Rank	Highest



# Maintenance HUC12s



Map options

Restoration/Enhancement Priority

Watersheds

Maintenance HUCs

<input checked="" type="checkbox"/>	STATES	MD
	HUC12	020801100403
	NAME	Taylor Branch-Manokin River
	HUC type	surplus
	No action - Sufficiently Protected	

# Next Steps

- Calculate the baseline acreage
- BDAT will need to work with the indicator coordinator, ACJV, and STAR at the CBPO to work out monitoring and reporting
  - How will states report their data? How often?
  - How often will the model be updated?
  - Define interim outcome goals (e.,g. xx acres restored/enhanced per year)
- Is a HUC12 deficit/surplus analysis sufficient for planning? Do we need a stepdown of HUC12s into wetland type?