

Development of Regional Terrestrial and Aquatic Habitat Classification Systems



A Foundation for Implementation of Wildlife Action Plans

Wildlife Action Plans (WAP)

- Completed October 2005 by each state/territory
- 8 required elements including:
 - #2: Locations & relative condition of habitats essential to species of greatest conservation need



NEAFWA – Wildlife Action Plan meeting - March 2006

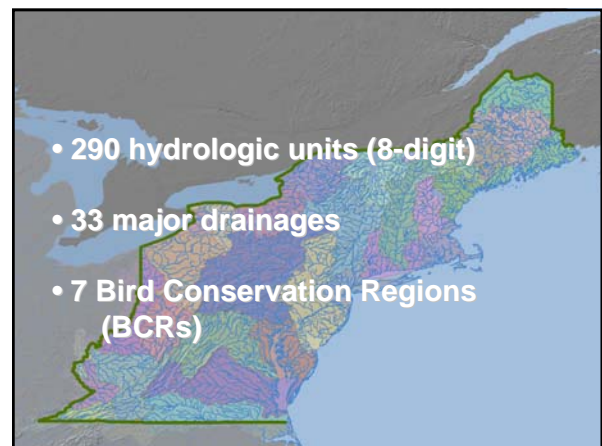
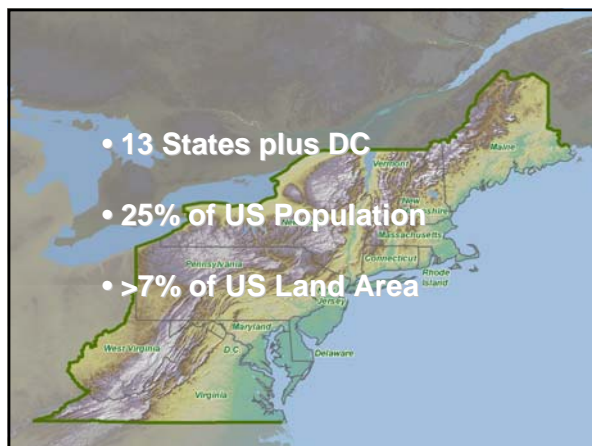
Purpose: identify specific actions that, based on the collective priorities identified in the states Action Plans, would further fish and wildlife conservation in the (northeast) region

Of 72 proposed regional conservation action items the highest priority was given to:

standardized, consistent, and current habitat maps

Northeast Wildlife Habitat Classification and Mapping Project (NEWHCAMP?)

- “adopted” by VA Dept of Game & Inland Fisheries on behalf of NEAFWA – submitted proposal
- Project recently funded by Doris Duke Charitable Foundation (DDCF) & National Fish and Wildlife Foundation (NFWF)
- 18 month project – starting Oct 2006



Why Habitat Mapping

- Create consistent “wildlife” base map for entire region
- Assist states with habitat mapping and assessments – requirement of WAP
- Provide basis for identifying regional conservation priorities
- Baseline to identify changes and trends



Objectives – Build upon State Action Plans

- Foster regional conservation by adopting standard habitat classification systems
- Advance partnerships to promote detailed habitat mapping (GAP, NFHI, Landfire)
- Provide/Promote seamless GIS habitat datasets
- Provide a current regional database of protected areas

Products

- Terrestrial habitat classification system
- Plans and partnerships to create a detailed terrestrial habitat GIS dataset
- Aquatic habitat classification system
- GIS dataset to be the basis for aquatic habitat
- Standardized map (GIS dataset) of currently protected/conserved areas
- Documentation of each state's habitat mapping capabilities and resources
- Standing NE regional habitat mapping coordinating committee

NE Habitat Mapping Capabilities Survey July 2006

Purpose:

- Assess each state wildlife agency's current habitat mapping resources: people, classification systems, datasets
- Obtain relevant contact information for each jurisdiction for habitat classification (terrestrial, aquatic, marine) and GIS mapping

Survey Results – GIS Capabilities

11 out of 14 jurisdictions reporting

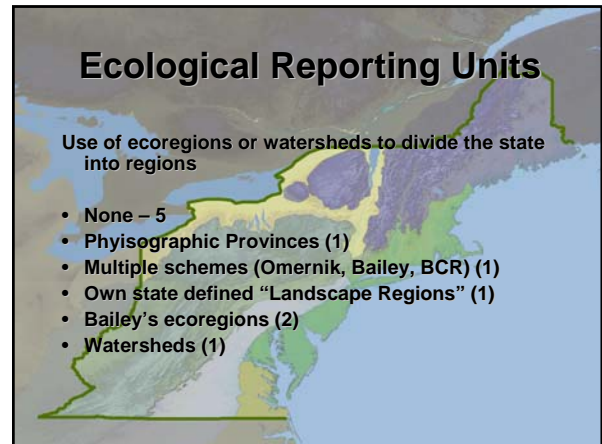
- 8 of 11 used GIS in their Wildlife Action Plan
- 7 of 11 Have a GIS Coordinator
- Ave No. of GIS Staff = 2.8
- All states use ESRI ArcGIS software

WAP Habitat Mapping: State Approaches

- Some mapped all habitat
- Most listed or mapped important or key habitats
- Most mapped habitat using surrogates:
 - Land cover, NWI, vegetation, other variables
- Some mapped wildlife species occurrences
- Most states did a combination of the above
- A few did no mapping at all

States' Habitat Classification Schemes

<u>Terrestrial</u>	<u>Aquatic</u>	<u>Marine</u>
Have system – 3	Have system – 3	Have system – 1
Use surrogate: NVCS – 2 Land cover – 2	Use surrogate: NWI – 1	Use surrogate: NWI – 1
List/group - 2	List/group - 3	List/group - 1
None – 2	None – 4	None – 5



- ### The Players
- **Steering Committee – 11 people, representing 7 states plus USFWS**
 - **Contractor - TBA**
 - **Habitat Mapping Partners**

- ### Terrestrial Habitat
- Compile systems used in jurisdictions
 - Evaluate NatureServe's Ecological Systems Classification for conversion from a vegetation community grouping to Wildlife Habitat grouping
 - Develop a hierarchical framework for describing terrestrial habitat with a mid-range scale appropriate for regional and state mapping (analogous to Ecological Systems)
 - Work with states and partners to cross-walk current systems to the new standard

- ### Aquatic Habitat
- Build on past work
 - Aquatic Gap
 - TNC
 - Partner with new programs: National Fish Habitat Initiative (NFHI)
 - Adapt NFHI framework for the Northeast
 - Compile an aquatic habitat base layer
 - USGS National Hydrography Dataset
 - Flow corrected and basic stream size attributes

- ### Contractor Tasks
- Determine habitat classification needs
 - Design draft habitat classification systems
 - Conduct a workshop to seek input and feedback
 - Finalize classification systems
 - Compile, correct, and attribute stream reach aquatic habitat base GIS data
 - Compile and standardize database of protected conservation areas

Habitat Mapping Partners

- All 14 member jurisdictions
- Federal agencies: USGS, NOAA, USFWS
- Other groups: TNC, NatureServe, Defenders of Wildlife
- Responsibilities:
 - providing input and feedback
 - cross-walking own systems to new standards
 - adopting/using/promoting new standards

Northeast Land Cover, Habitat Classification & Mapping Coordination Meeting

Key Conclusions:

- USGS/NOAA C-CAP will provide land cover and change detection data for all NE in next few years
- Due to regional interest, National Gap will expand Regional Gap Analysis effort to Northeast – completed 2009
- Ecological Systems Classification (NatureServe) - used by several programs, continues to evolve, needs modification to be “wildlife-centric”
- TNC has developed a “protected areas” dataset that can be expanded and updated

Keys to Success

- Participation and support of all states/territories plus NEAFWA
- Communication among all 14 states/territories and with federal partners
- Partnerships

For more information contact:

Dave Morton
GIS Coordinator
Virginia Dept of Game & Inland Fisheries
804-367-6772
dave.morton@dgif.virginia.gov