New Jersey Highlands Council
Ecosystems Management
Technical Advisory Committee
Meeting Summary
15 July 2005

Summary:

On July 15, 2005, the Ecosystems Management Technical Advisory Committee (TAC) held a meeting at the New Jersey Highlands Council office in Chester, New Jersey. Notice of the meeting was provided to the public on the Highlands Council's web site. Adam Zellner, Executive Director of the Highlands Council, welcomed the members of the Technical Advisory Committee and thanked them for their willingness to offer their expertise to the Council in preparation of the Regional Master Plan. Council staff members present at the meeting were: Steve Balzano, Tom Borden, and Maryjude Haddock-Weiler. Dan Van Abs from the New Jersey Water Supply Authority, consultant to the Highlands Council, facilitated the session. Technical advisors present at the meeting included: Janet Bucknall, Donn Derr, Dr. Joan Ehrenfeld, Dr. Marian Glenn, Rick Radis, Ted Stiles, Dr. Sharon Wander, Dr. Sara Webb, Anthony Cassera, Sherri Albrecht, Rick Lathrop and Dr. Emile DeVito.

The discussion began with an overview of the purpose of this particular Committee. The Committee will focus on three areas of consideration: identification of natural resources that merit protection, methods for assessing the relative conservation value of those resources, and the determination of what methodologies can be used to assess the threat of various land uses upon the sustained integrity of these resources.

Dan Van Abs explained that the TAC would be creating an initial list of critical issues for the Highlands Council to consider in regards to ecosystem management, both long-term and short-term. The TAC members collaborated to identify the following list of key issues.

Key Issues:

- Integrity of contiguous forests.
- Increasing the sizes of currently designated "protected areas"
- Preservation of wetlands areas not currently protected by the Act
    - Small and tiny wetlands that are scattered around *(e.g., vernal ponds)*
- Preservation of headwater streams that are currently not mapped
- Endangered species habitats
    - Particularly in upland habitats
- Wetland buffers
    - Current 300 ft. buffers don't encompass the entire areas within which endangered animals "wander" and endangered plant life exists. *(e.g., wood turtles, various salamanders.*
- Forest integrity.
    - Particularly the dynamics of what is going on within the forests
        - *(e.g., are invasive species present that compromise forest integrity?)*

- Invasive species and their impacts
- Habitats for non-endangered species
    - *(e.g., migratory species).*
- High quality aquatic resources

The TAC members were asked to identify the key sources of information and data, including databases, reports and related documents, which should be consulted in the preparation of the Regional Master Plan. The following list was produced.

Data Sources:

- National Heritage Program
- USGS geological data and web site *(e.g. water temperature and stream flows information.*
    - See http://www.usgs.gov/state/state.asp?State=NJ
- The Bureau of Freshwater & Biological Monitoring's *Ambient Biomonitoring Network* (AMNET)
    - See http://www.state.nj.us/dep/wmm/bfbm/amnet.html
- US Forest Service studies
- US Fish and Wildlife
    - Game species programs *(e.g. bear and deer)*
    - Waterfowl surveys
- Audubon Society's NJ Breeding Bird Atlas and grassland studies
    - Available in both computer and hardcopy formats *(computer format is more detailed)*
    - See http://www.njaudubon.org/research/atlas.html
- New Jersey Herpetological Atlas
- The Metro Flora Project - Brooklyn Botanical Garden
- Developing Databases
    - Washington Valley project
    - Butterfly data
    - Site specific data
- Dave McFarland's (Rutgers Student) *Eco Map* project
    - Connie Carpenter (Sustainable Forest Service Coordinator, USDA Forest Service) might be able to provide more information on this
- State information on:
    - Updated land use and land cover
    - Updated stream and water cover
- New Jersey Conservation Foundation data
    - See http://www.njconservation.org/
- NY – NJ Highlands Regional Assessment Update (USDA Forest Service web site) - www.crssa.rutgers.edu/projects/highlands
        - This site also has links to the Forest Service website
- Garden State Greenways web site - http://www.gardenstategreenways.org/

The TAC members were asked how the previously identified ecological resources might be prioritized in terms of the need to protect them. The following issues and potential methods were suggested and discussed:

Prioritization Issues:

- Report card systems utilizing criteria and metrics
  - Can apply to land units, etc.
  - Similar methods used by other parties should be looked at
  - Some areas will be highlighted with a better score:
    - *(e.g., Areas of high quality which represent a standard of what a preservation area should look like.*
  - Should include site specific information
  - Should be a rubric, so that important individual criteria aren't overshadowed by overall criteria categories
    - *(e.g., important individual criteria can make a site without much integrity otherwise, very important to preserve.*
    - This rubric can be broken into categories
  - Can factor in both quantitative and qualitative measures
  - It would have to be determined what the grading would be applied to, for example:
    - Applied to individual land management units.
    - Applied to individual parcels.
- Areas that should take precedence:
  - Unbroken canopy areas, particularly those where forestry law and policies, etc. threaten the canopy
  - Areas that have excellent examples of endangered species
  - Big, contiguous areas that already exist
    - Make these areas bigger
  - Water buffer areas that already exist
    - Make these areas bigger
  - Sites already being identified by conservation groups
  - Areas where the soil has never been plowed or grazed in the past
    - These areas have fewer invasive species
    - These areas are important even if they:
      - Have been logged
      - Are part of the planning area
    - Old and new soil surveys can be used to identify these areas *(e.g., NRCS survey.*
      - See http://soils.usda.gov/
      - Cook and Vermule's turn of the century plane table surveys
  - The Nature Conservancy's priority sites (both in the planning and preservation areas)
  - Small sites with unusual situations
    - Species rich sites
    - High quality representations of natural communities

    - All vegetation covered areas, not just those that are habitats for endangered species
    - Areas necessary to preserve continuity
- Data gaps that exist and should be filled:
    - Areas that have strong under story character
    - A full picture of what the biodiversity in the area is
- Criteria that should be used to define integrity:
    - Forest survey
    - Protected lands
    - Areas with forest cover
    - Proximity to ecological disturbances, including:
        - Agriculture
        - Roads
        - Human population density
    - Open space should be preserved
    - Forest and wetlands
    - Some types of agriculture
    - Vegetative patch size
    - Bigger areas are more important
        - Big rectangular areas taking precedence over large lined areas
- Property owners must be forced or encouraged to manage their own property in a more environmentally friendly way, for example:
    - Encourage people to replace their lawns with more water friendly coverings *(e.g. wild flowers)*
    - Discourage the destruction of the under story of backyard forest lands

Steve Balzano then asked the group to consider what methodologies may be considered in identifying areas that would be proper for restoration and in need of restoration. The following methodologies were identified:

Restoration Methodologies:

- Intensity or frequency of land management practices in areas in need of restoration
- Forested areas that are presently contiguous in New Jersey must be preserved
- Areas where forestry activities are currently taking place
    - This can be identified using the woodland data forms were people report what their harvests have been
- Purchase individual houses that have broken up otherwise contiguous forests
- Areas where farming exists and buffers are too small

Next Steps:

The group members were then asked to think of names of other experts in the field of ecosystem management who should be asked to serve on the TAC and attend future meetings. It was suggested that Eric Karlin, a wetlands expert from Ramapo College, and Leslie Sauer, landscape architect, restoration practitioner, and author of *The Once and Future Forest: A Guide to Forest Restoration Strategies* be asked to join the TAC.

We will proceed by collecting comments from the TAC members regarding this meeting summary. The Council staff will supply TAC members with relevant information and updates as they relate to this subject and other TAC topics as they relate to the work of the Ecosystem Management TAC.

Ecosystem Management TAC members who have discovered or thought of any further citations or information sources that were not discussed during this TAC meeting, should forward those sources to Steve Balzano, Director of Science and Planning for the Highlands Council.