Day 2 Agenda

Real World Examples – How partners are incorporating CCR considerations into their conservation, planning and land management processes:
- Maine Department of Inland Fisheries and Wildlife
- Maine Coast Heritage Trust
- Western Forests/Loon Echo TB
- Maine Farmland Trust
- Appalachian Mountain Club
- Bureau of Parks and Lands, DACE

Questions

Break

Strategies - Discussion and brainstorm on strategies LMF could adopt to ensure we are a strong partner in the State’s goal of promoting and enhancing the resiliency of Maine’s natural resources.
- Proposal
- On the ground implementation (easement terms and ongoing stewardship)
- Other ideas?

Next Steps for the LMF Board
- Update on LAPC review which will incorporate climate change/resiliency/carbon sequestration
- Other next steps for the LMF Board to consider?
1. Which species are at-risk?
2. Where are they found?
3. Why are they at-risk?
4. What can we do about it?
Maine’s Wildlife Action Plan:
378 At-Risk Species

One-third affected by climate change

Images by USFWS, Audubon, NH Fish and Game

Actions to Address Climate Change

Survey and Monitoring (8)
- Track resiliency and changes
- Focus on northern forests, marshes, and high elevation

Public Outreach (7)
- Mitigation and adaptation
- Landowner engagement
- Roads and connectivity

Management (18)
- Conservation and restoration of vulnerable habitats
- Marsh migration
- Riparian buffer zones

Research (25)
- Identify connectivity hotspots
- Improve modeling of climate change impacts

Beginning with Habitat (BwH): Maine’s Premier Biodiversity Planning Tool

Mission: To compile, integrate and deliver the best available information, tools and incentives to facilitate effective land use planning and natural habitat conservation at local, regional and state-wide scales.
BwH Climate Change Tools: Vulnerable Species and Habitats

- Salt Marsh Sparrow
- Harlequin Ducks
- Piper Plover
- Salt Marsh Beetle

BwH Climate Change Tools: Statewide Focus Area

- Tunk Lake Focus Area

New BwH Tools

- Marsh migration
- Cold water fisheries
- New connectivity and resiliency datasets
- Additional web resources
Conservation and Management
MDIFW Wildlife Management Areas

- 106,000 acres, all counties
- Primary objective is wildlife habitat
- Secondary objective is public recreational use
- Examples of climate change management practices

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Conservation and Management
MDIFW Wildlife Management Areas

- Conservation through the lens of climate change
- MDIFW uses SWAP and BwH information in its decision process for land acquisition
  - Focus Areas
  - Vulnerable species and habitats
  - Connectivity

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Conservation and Management
Living Shorelines

Wharton Point, Brunswick

- Increase resilience, reduce risk
- Use of nature based coastal infrastructure projects
- 3 sites located by MCS
- NOAA funded, multiple partners
Conservation and Management

RSET – Rod Surface Elevation Tables

Saltmarsh monitoring of erosion/accretion to determine the extent to which salt marshes keep pace with sea level rise

2016 MCP, MDIFW and others partnered to install 11 monitoring sites (6 of which are on WMAs).

Future efforts on vegetation assessment

Conservation and Management

Saltmarsh restoration

- Project Partners: KELT, MDOT, MDIFW, BWD, Town of Woolwich, Bates College, USFWS, NOAA,
- Restore a natural hydrological regime to enhance fish passage, function saltmarsh and improve critical infrastructure’s resistance to flooding from storm surge and projected sea level rise scenarios.
- Modelling and design

Conservation and Management

Invasive plants

- Threat to long-term habitat suitability and ecosystem function
- Assessment of invasive plant species – MNAP/staff/volunteers
- Management approach/control efforts
- RISCC – risccnetwork.org
  - Model invasive threats with projected climate change models
Conservation and Management
Adapting for SGCN Species

- Frye Mountain WMA
  - Considerations for Beech Management
    - Identified in prescription review
    - Species of Greatest Conservation Need
      - 2015 SWAP
  - Early Hairstreak
    - Priority 2 species
    - Threats
      - Lack of knowledge
      - Logging and road harvesting
      - BBD, habitat loss

Conservation and Management
Biological Diversity

- Enhance biological diversity for suite of ecological services
  - Forest structure/composition
  - Riparian zone
  - Ecological Reserves

Marshes for Tomorrow
Jeremy Gabrielson
Conservation and Community Planner
November 18, 2020
Jones Marsh

Lessons

- Multiple overlapping conservation values
- SLR is just one piece of the puzzle
- Partner, partners, partners
- Need for resilience-oriented funding

Land Protection for Climate and Carbon
Western Foothills and Loon Echo Land Trusts
In practice:

- Carbon offset sales
- Small landowner aggregation
- New revenue streams for contracting foresters
- Silvicultural techniques and species composition for maximizing carbon and traditional timber incomes
We are a member-powered statewide organization that works to protect farmland, support farmers, and advance the future of farming.
MFT New Strategic Plan
Stewardship and Climate Impact Area

Objectives:
• Increase extent climate smart and other conservation practices are integrated into MFT work
• Significant increase in the amount of support for farmers adopting/employing climate smart practices

Strategies:
• Advancing related federal/state/municipal policy work
• Partnering on farmer outreach/education activities
• Integrating support for climate smart practices into MFT farmland protection and farm viability programs

Farmland Protection as a Climate Strategy

• Critical for achieving Maine’s climate change mitigation and adaptation goals:
  • Avoiding future emissions associated with development
  • Preserving climate mitigation and adaptation benefits from climate smart farming practices
  • Ensuring the land base to grow the local agricultural economy and create greater food security

Current Climate-Related Land Conservation Work
• Natural Climate Solutions Initiative
• RCPP project to conserve farmland and marsh habitat
• Process of reviewing easement terms
• Distributing to farmers information about climate smart practices and support
Potential Climate-Related Land Conservation Work

- Incorporate climate strategies and resiliency indicators into land protection evaluation process
- Concerns about including practice requirements in easement terms
- Separate but connected contract for climate smart agricultural practices

Current and Future Climate-Related Farm Viability Work

- Farmer Outreach and Education Events
  - Example: Healthy Soils, Healthy Farms event in Aroostook County
- Support for climate smart practices through business planning and technical assistance
- On-Farm Research and Demonstration Projects

Questions?
mainefarmlandtrust.org
AMC’s Maine Woods Initiative

Landscape-scale conservation in Maine's Northwoods

Steve Tatko: Director of Maine Conservation and Land Management

AMC’s Big Idea

Maine Woods Initiative

Objectives/Attributes:
1. Ensure Public Access
2. Responsible Forest Management
3. Economic development, community partnerships and local environmental education
4. Landscape Scale Habitat Restoration
5. Develop a new integrated model for conservation finance
Very low "Human footprint", 2009 (blue = wilder, red = more developed).
Source: Wildlife Conservation Society
The largest globally significant Important Bird Area in the continental United States.

Source: National Audubon Society
AMC’s MWI Ownership

37,143 acres

Roach Ponds (2009)
28,346 acres

Baker Mountain (2015)
4,045 acres

Silver Lake (2016)
4,358 acres

Total
73,892 acres

Pleasant River Headwaters Forest (planned)
26,740 acres

The 100-Mile Wilderness is the southern anchor of the core of Maine’s North Woods.
2003: 15% of river corridor protected
2019: 95% of river corridor protected
(70% in AMC ownership)
Since 2011 AMC has completed 62 fish passage projects opening up 64 miles of native brook trout and salmon spawning habitat.
Management goal to have all barriers to fish passage removed by 2024

High Conservation Value Areas

- 3 large high-elevation areas (Baker Mountain, Whitecap Mountain and Barren-Chairback) that are part of large roadless areas extending on to adjacent ownerships; mature montane forest; Bicknell’s thrush habitat.
- Caribou Bog – domed peatland bog ecosystem (S3).
- West Branch Pleasant River floodplain forest – large exemplary occurrence of S3 natural community.
- All areas managed as reserves or natural areas; limited harvesting along southern fringe of Barren-Chairback HCV.
AMC Late Successional, Uneven Aged Management

- Late-successional structures - Restorative forestry
- 6,000-7,000 cords annually cut by local crews sent to local mills. Increase to 12,000 cords with new land acquisition
- FSC certified sustainable

1. Includes live trees >1" diameter (above- and belowground) and standing dead trees.
2. Growth model developed for KIWER carbon offset project; based on 2011 inventory.
3. Growth and harvest model developed by K. Bothwell; based on 2010 inventory and MWI harvest data.

Increasing carbon stocking on MWI lands:
- Carbon stocking on both AMC and MWI non-reserve lands has increased about 17% over the last decade.
AMC has developed two forest carbon offset projects on Maine Woods Initiative (MWI) ecological reserves.

- Initial credits based on carbon netting above a “business as usual” baseline.
- Continue to earn credits as project area sequesters additional carbon.
- 100-year commitment to retain credited carbon; on-going obligations for inventory and verification.

To date we have sold almost 280,000 credits for over $1.2 million (plus $900,000 towards purchase of Silver Lake property).

Katahdin Iron Works Ecological Reserve
Silver Lake

MWI Carbon sales in Ecological Reserves

First Kenneth Kimball Research Fellow
- Broad goal – to investigate how carbon being sequestered in AMC’s forest can best be utilized in service to AMC’s mission.
- Evaluated potential for additional carbon offset projects on AMC land.
- MWI non-reserve lands (gray) determined to be potentially viable.
- >38,000 acres (timber management plus protection zones).

New carbon project
- Proposals requested from two commercial project development companies.
- Working with FiniteCarbon on short-term voluntary market sale with a 40-year lifespan.
- Carbon inventory complete fall of 2020 with revenue expected in 2021.

MWI Carbon Sale on Managed Lands

Thank You!
Maine Bureau of Parks and Lands
- 48 State Parks and Historic Sites
- 620,000+ acres of Public Lands
Managed for:
- Recreation
- Wildlife & Biodiversity
- Cultural and Historic Resources
- Forest Management
www.ParksAndLands.com

State Parks
- Camping: 280,000+ -- All-time record!!!
- Cobscook, Lily Bay, Aroostook all saw huge increases

2020 – A Memorable Year of Public Use!!

Public Lands
- Some sites (Tumbledown Mountain, Cutler Coast) exceeding ‘carrying capacity’

State Parks
- Camping: 280,000+ -- All-time record!!!
- Cobscook, Lily Bay, Aroostook all saw huge increases

Climate Change Considerations
1. Sea Level Rise & State Parks
2. Acquisition Planning
3. Carbon Storage and Sequestration
   - Ecological Reserves
   - Managed Forest
Strategies - What are we already doing?

LMF Conservation Priorities

- Recreation lands
- Water Access Lands
- Lands Supporting Vital Ecological Functions and Values
- Rare, Threatened, or Endangered Plants, Natural Communities
- Wildlife and habitat
- Areas of Scenic Interest and Prime Physical Features
- Farmland and Open Space
- Ecological Preserve
- River or Trail System
- Island or Undeveloped Coastline
- Significant Mountain Areas
- Public Water Supply

Scoring Prioritizes Projects that...

- Are part of a regional conservation plan or effort
- Connect or are adjacent to existing conservation lands
- Are part of a locally adopted comp plan
- Implement protection of open space, recreation, wildlife habitat and/or rural areas that are consistent with the State’s Growth Management Act
- Are in a primarily natural state and do not require restoration

Strategies - What are we already doing?

LMF Project review includes

- MNAP map & checklist for each parcel
  - R, T, E plant species
  - R, T, E animal species
  - Rare and/or Exemplary Natural Communities
  - MDIFW Significant or Essential Habitats
  - Connectivity to conserved lands
  - Intersects large undeveloped block
  - Intersects a BwH focus area
  - USFWS priority trust species - top 25%
Strategies - What are we already doing?

Working Waterfront Projects

Stewardship & Management

- Ensure easement terms protect the conservation values identified in the proposal
- Easements reference Best Management Practices
- May require a management plan to ensure adaptive management as conditions change
- Annual reporting to understand how the property is being used and changes over time
Strategies - What else could we be doing?

- Small team of MNAP & MDIFW staff work with LMF to develop scoring protocols that could be incorporated by LMF Board.
- TNC resilience, connectivity and biodiversity tool being used by BPL - useful at a larger scale with landscape context rather than at smaller parcel level. BwH may be more appropriate at parcel scale.
- Standard review tool extremely helpful to MNACP review process.
- Participants should be in touch with MNAP if there are other tools/data that are helpful.
- Re. coastal resilience projects - federal funds are sometimes prohibited from providing matching funds - LMF could be a big help.
- Regular funding cycle.
- Retain management flexibility with working lands easement terms.
- Stewardship and management considerations will have to be acknowledged.

Strategies - What else could we be doing?

- w/r/t farmland (and potentially other working lands) easements, scoring climate considerations may need to be different than fee acquisitions.
- Standardizing data to the parcel level to understand relative importance/contribution. Look at aggregate acres when considering multiple parcel opportunities.
- A tool available to all LT and recommended by LMF would help level the playing field for all size/capacity LT.
- OSI tool useful for forestland projects, and carbon data newly available.
- BwH data shows current presence of RTE species, needs to include potential for RTE species in light of climate change.
- How does LMF Board integrate this information into scoring, and then use that in a way that doesn't disadvantage smaller projects or projects that are intended to accomplish other LMF conservation objectives.

Strategies - What else could we be doing?

- Data availability/quality in organized towns vs. unorganized towns may need to be a consideration (in addition to parcel size).
- Long term stewardship is critical as we face changing climate.
- Scoring weight - balancing all of the public benefits in a meaningful way that reflects Board priorities as well as statutory and bond requirements.
Next Steps

Update Conservation Priorities

- What have we accomplished?
- Where are the gaps?
- Incorporate climate change, carbon and resiliency considerations in conservation priorities

- Other suggestions for the LMF Board?

Thank You!