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Report Back

On Creating Higher Standards For State-owned and State-managed Land For Deer Habitat- LD 1965

2022 Report Back to the 131st Joint Standing Committee on Inland Fisheries & Wildlife

Provided by Inland Fisheries & Wildlife

Prepared by: Sarah Spencer, IFW Wildlife Biologist

Presented By: Nate Webb, Wildlife Management Supervisor

January 31, 2023



The following report is in response to a letter received by the Department of Inland Fisheries and Wildlife (Department) from the Joint Standing Committee on Inland Fisheries and Wildlife on March 18, 2022 (Appendix 1), the result of L.D. 1965, a concept draft related to creating higher standards for State-owned and State-managed land for deer habitat.

Background

In northern Maine, the ability for deer to persist has historically depended upon the quantity and quality of winter shelter. Quality winter shelter consists of closed canopy softwood which acts to reduce snow depths and the effects of temperature and wind. Functionally, the moderation of these environmental factors helps to reduce energy expenditures of deer through the winter months.

Efforts to conserve Deer Wintering Areas (DWAs) began in the 1950's and 1960's through the inventory and survey of known DWAs, particularly in the northern 2/3 of the State. At the same time, the Department entered into Cooperative Agreements with industrial forestland owners to accommodate DWA protection and enhancement. This effort was reinforced in the 1970's and 1980's through zoning of DWAs as protection areas under the Land Use Regulatory Commission (now LUPC) in unorganized areas of the State.

In organized towns, DWAs have been identified but are only regulated through Site Law Development under the Natural Resources Protection Act (NRPA). The Department provides input as a non-regulatory agency through its Environmental Review program related to development projects.

The Department has also signed Cooperative Agreements with landowners covering 194,403 acres, in addition to several landowners that informally manage DWA habitat in collaboration with MDIFW. It's important to note that Cooperative Agreements are not binding to the landowner and can be nullified at any time.

Process to Develop Recommendations

As requested by the Committee, the Department met with representatives of the Bureau of Parks and Lands (BPL) and the Sportsman's Alliance of Maine (SAM) to discuss the management of DWAs in northern, eastern, and western Maine. The first meeting was held on July 25, 2022 at IFW in Augusta where parties discussed their mandates and objectives, BPL's management planning process, BPL's harvest planning process, the Department's DWA survey methodology, harvest planning review conducted by BPL's Wildlife Specialist (a Department Biologist), new technology and habitat planning efforts underway by both agencies, viewpoints on existing management, and an overview of a field visit scheduled for August (Appendix 2). On August 11, 2022, a group of Department and BPL staff, and representatives from SAM and the Aroostook County Conservation Association (ACCA) met at BPL's Scraggly Lake Unit. Scraggly is a 10,000-acre parcel in Northern Penobscot County where BPL and IFW have been working together to manage DWA habitat cooperatively for decades. The tour included examples of areas harvested 2 years, 15 years, and 35 years ago. Agency staff reiterated the planning processes outlined at the July meeting with the visual aid of what the forest looks like before and after harvest and across different parts of the DWA. Participants from BPL, the Department, SAM and the ACCA all noted that decades of careful BPL management in cooperation with IFW has consistently resulted in some of the best managed forest land in Maine, especially within DWAs. Those involved would like to see continuation of this cooperation and the addition of new resources for planning, monitoring and managing deer habitat on BPL managed lands.

Current DWA Management on BPL Lands

BPL manages over 630,000 acres of Public Reserved Land to offer a wide range of recreational and educational opportunities and provide environmental and economic benefits for present and future generations. BPL's planning efforts consist of three levels, an Integrated Resource Policy, Regional Management Unit plans, and harvest planning and prescriptions. Each of these three levels contains a wildlife component, and the Wildlife Specialist is assigned to work directly with BPL on these issues. During the Regional Management Unit planning process, BPL establishes wildlife as the highest priority on acres where DWAs have been zoned by LUPC or mapped by the Department. In these areas, the Wildlife Specialist reviews and determines if other activities such as timber harvesting or recreational infrastructure will impact the purpose of the designation.

The Department surveys DWAs on BPL properties the same as any other landowner. This winter effort is led by Regional Wildlife Biologists, supported by the Wildlife Specialist and Deer Habitat Biologist, and is supported with Federal Pittman-Robertson funding. Priority is given to areas of northern, eastern, and western Maine (Appendix 3) where deer are known to be overwintering, and in zoned P-FW's within the jurisdiction of the Land Use Planning Commission (LUPC). Surveys are conducted by aircraft, averaging 261,000 acres/year (pre-covid), and on the ground, averaging 7,400 acres/year (pre-Covid).

When BPL proposes a timber harvest within a DWA, the Forester notifies the Wildlife Specialist of their intent typically ~9-12 months prior. Logistics and market fluctuations sometimes reduce this time frame; however, staff make it a priority to conduct the same level of review. A desktop and office file review is conducted to collect all survey results, harvest history, stand typing, and map travel corridors. One or more site visits occurs prior to harvest depending on how much information is already available, and involves the Forester, Wildlife Specialist, and Regional Wildlife Biologist. Impacts of the harvest prescription on shelter and travel corridors are calculated, and adjustments are made to meet or exceed the Department's management guidelines. This forest management is the most direct way the two agencies can cooperate to improve the quality of DWAs owned and managed by BPL.

BPL and the Department have recently partnered on a project at the Scraggly Lake Unit to acquire an enhanced forest inventory, based on Lidar, remote sensing, and begin work on a growth and yield model to guide maintaining and improving shelter for wintering deer through time. BPL staff collected the ground data needed for the vendor to complete the modelling project by spring 2023. The cost of this project is being split by the two agencies. The planning and harvest work at Scraggly Lake provides a good model for cooperation on habitat planning and habitat improvement activities going forward.

Recommendations

As requested by the Committee, BPL and IFW have identified additional planning, implementation, and capacity needs to improve DWAs on BPL while continuing with the existing cooperation between the two agencies. First, we recommend that IFW offer two forms of financial assistance to BPL from the Deer Management Fund, one for planning and a second for implementation. Planning grants may be awarded to BPL for projects such as:

- Acquisition of imagery (Lidar etc.) or on the ground tree measurements;
- Supplemental deer surveys;
- Planning and modeling work like the one conducted at Scraggly Lake, or other projects where planning of long-term management is needed to enhance the impact of harvests to benefit deer; and
- Staff or contract forester expenses associated with deer planning and habitat planning and management which can require substantially more staff time than other harvest activities. Investing in the time and effort for focused planning and implementation is an important step.

Implementation grants may be awarded for management needs in BPL DWAs such as:

- Supplementing costs associated with pre-commercial thinning or other forest management activities as identified in harvest and habitat plans
- Intermediate treatments when harvests are not planned or when harvest scale recommended by IFW will be at a net loss.

Second, to ensure funds provide long-term benefits to DWA habitat, before grants are awarded for implementation, we recommend that the area be designated by the Director of BPL as a DWA and a Habitat Management Agreement developed in collaboration with IFW. To implement this recommendation, one possible approach is a statutory amendment to establish a process for designating DWA on BPL (Appendix 4). IFW is submitting a concurrent proposed statutory amendment to clarify that the use of Deer Management Funds for direct enhancement or manipulation on these lands can only occur after they have been designated as a DWA by BPL (Appendix 5).

Third, we recommend adding a full time IFW Fish and Wildlife technician position in the Department's budget proposal to prioritize monitoring and management of DWAs on BPL's land base. This position will provide critical new capacity to ensure habitat and deer use is monitored in targeted locations at regular intervals and would also be involved in the planning and implementation parts of the strategy. The position would be funded with a combination of the Department's federal grant funds and dedicated funding from the BPL's Public Lands account.

We believe implementing these recommendations will help ensure BPL can continue its long history of effectively managing DWAs, while providing additional resources to further improve wintering habitat for deer.

SENATE

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GLENN "CHIP" CURRY, DISTRICT 11
RUSSELL BLACK, DISTRICT 17

JULIA MACDONALD, LEGISLATIVE ANALYST
LINDA LACROIX, COMMITTEE CLERK



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STATE OF MAINE
ONE HUNDRED AND THIRTIETH LEGISLATURE
COMMITTEE ON INLAND FISHERIES AND WILDLIFE

COMMISSIONER'S OFFICE
RECEIVED
MAR 29 2022

21 March 2022

Judy Camuso, Commissioner
Department of Inland Fisheries and Wildlife
41 State House Station
Augusta, Maine 04333-0041

Dear Commissioner Camuso:

During our work session on March 18, 2022, the Joint Standing Committee on Inland Fisheries and Wildlife requested that a letter be sent to The Department of Inland Fisheries and Wildlife about creating higher standards for State-owned and State-managed land for deer management. The committee requests that the Department meet with a representative of the Bureau of Parks and Lands and a representative of the Sportsman Alliance of Maine to discuss the monitoring of deer wintering areas in the shaded areas of the attached map.

Please provide a report to the Committee by January 15, 2023, that includes a description of how the Bureau of Parks and Lands and Department of Inland Fisheries and Wildlife work together to improve deer wintering areas, if there is a plan to improve the deer wintering areas and what possible changes could be made to the existing system for deer management in the shaded areas on the attached map. The report should also include a summary of the process, and any recommendations, including any proposed statutory changes, if needed.

Thank you for your attention to this request. Please let us know if you have any questions.

Sincerely,

James F. Dill (Jm)

Sen. James F. Dill
Senate Chair

H. Scott Landry, Jr. (Jm)

Rep. H. Scott Landry, Jr.
House Chair

cc: Members, Joint Standing Committee on Inland Fisheries and Wildlife



Deer Wintering Area Management

July 26, 2022
Augusta, ME

- Introductions
- IFW Mandate
- BPL Mandate
- BPL Planning Process
- BPL Harvest Planning Process
- IFW DWA Surveys
- BPL Harvest Planning Wildlife Specialist Review
- New Technology & Efforts Underway
- Field Visit Overview





Maine Bureau of Parks and Lands

Protects and manages the natural and cultural resources under its care in order to offer a wide range of recreational and educational opportunities and provide environmental and economic benefits for present and future generations

www.ParksAndLands.com



Sebec Lake
Peaks-Kenny State Park



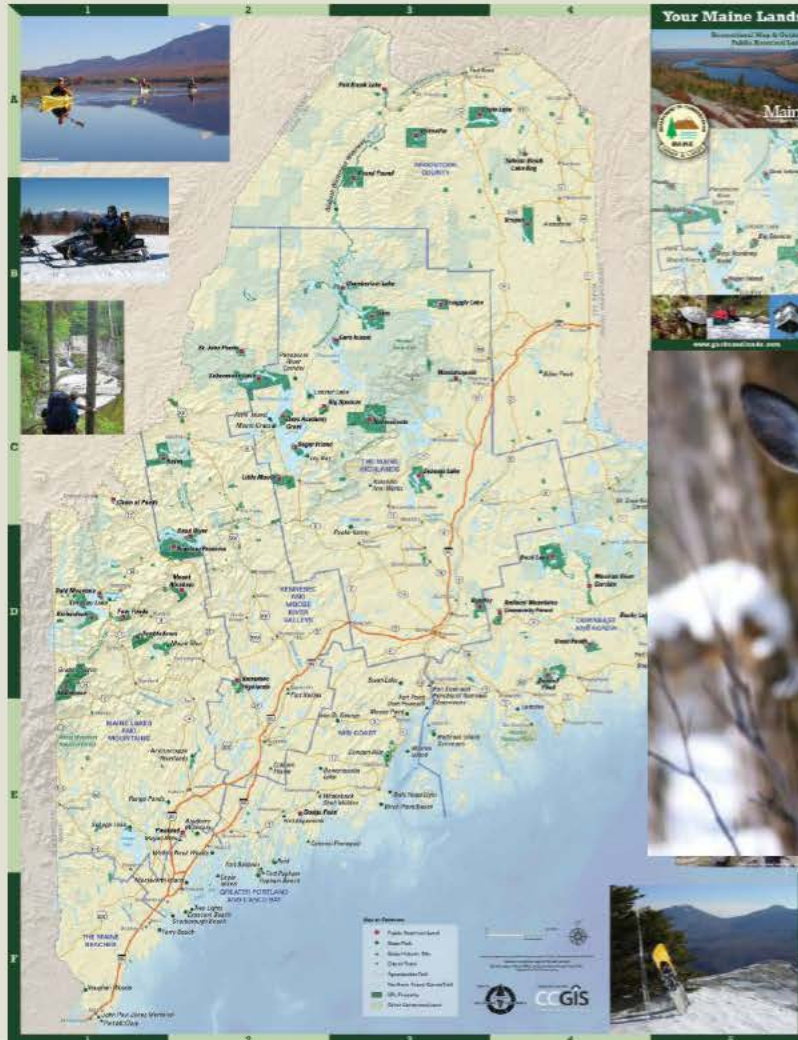
Your Maine Lands [map link](#)

Over 630,000 acres of Public Reserved Land for:

- Hunting & Fishing
- Forestry ~ Timber
- Wildlife & Plants
- Paddling, hiking, and other recreation.

www.maine.gov/dacf/publiclands

[Publications & Maps Webpage](#)



BPL Mandates



Public Reserved and Nonreserved Lands administered by the Bureau of Parks and Lands be managed *“in a manner consistent with the principles of multiple use and shall produce a sustained yield of products and services in accordance with both prudent and fair business practices and the principles of sound planning.”* (12 M.R.S.A. '1833.1, 1847.1)

Additionally, Public Reserved Lands are to be managed *“to demonstrate exemplary land management practices, including silvicultural, wildlife, and recreation management practices, as a demonstration of state policies governing management of forested and related types of lands.”*
(12 M.R.S.A. '1847.1)

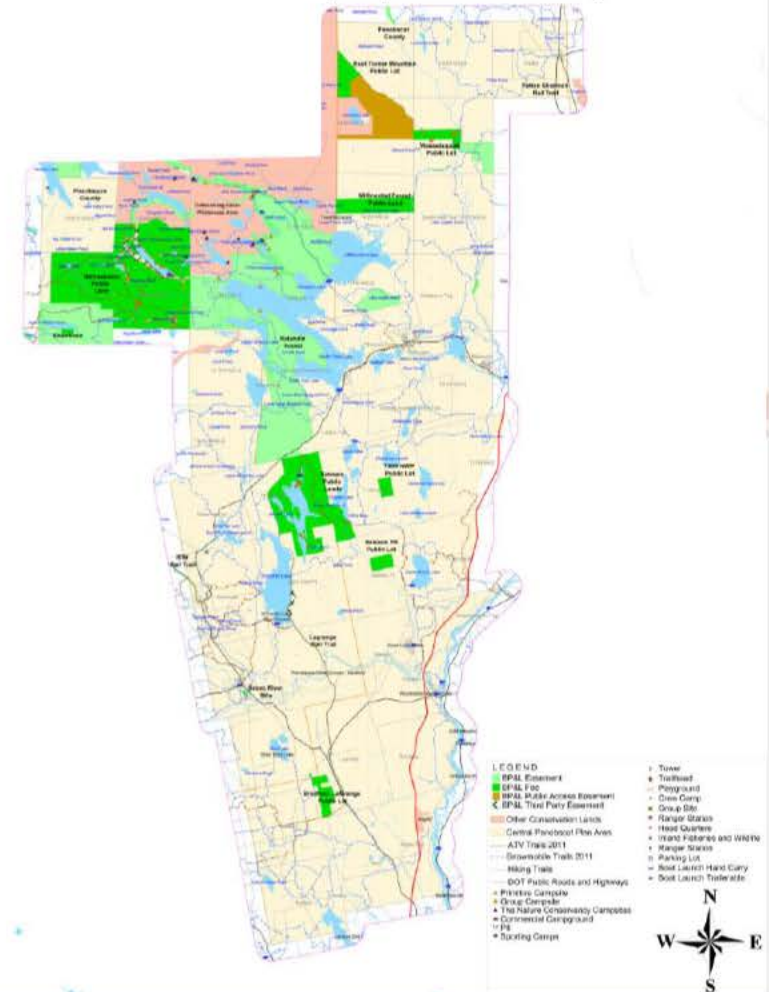
BPL Planning & Management



Three Levels of Planning:

- **Integrated Resource Policy**
(Long-term, big picture framework)
- **Regional Management Unit Plans**
(Wildlife and other allocations set)
- **Harvest Planning and Prescriptions**
(Detailed habitat planning)

Bureau of Parks and Lands (BP&L) - Central Penobscot Region



Resource Allocations



- Special Protection
- Backcountry Recreation
- Wildlife Dominant
- Remote Recreation
- Visual Consideration
- Developed Recreation
- Timber Management

Timber Harvests

Timber Management



Moosehead Lake



The mark of responsible forestry



SUSTAINABLE FORESTRY INITIATIVE

SFI-00034

Annual Harvest Levels



PARKS & LANDS

Year	Sustainable Harvest Level	Harvest
2011	114,860	126,562
2012	114,860	128,594
2013	141,500	165,568
2014	141,500	165,556
2015	141,500	135,369
2016	149,040	123,397
2017	159,000	137,049
2018	159,000	134,262
2019	159,000	114,881
2020	159,000	89,452
	1,439,260	1,320,690
		Average 92%

DWA Surveys



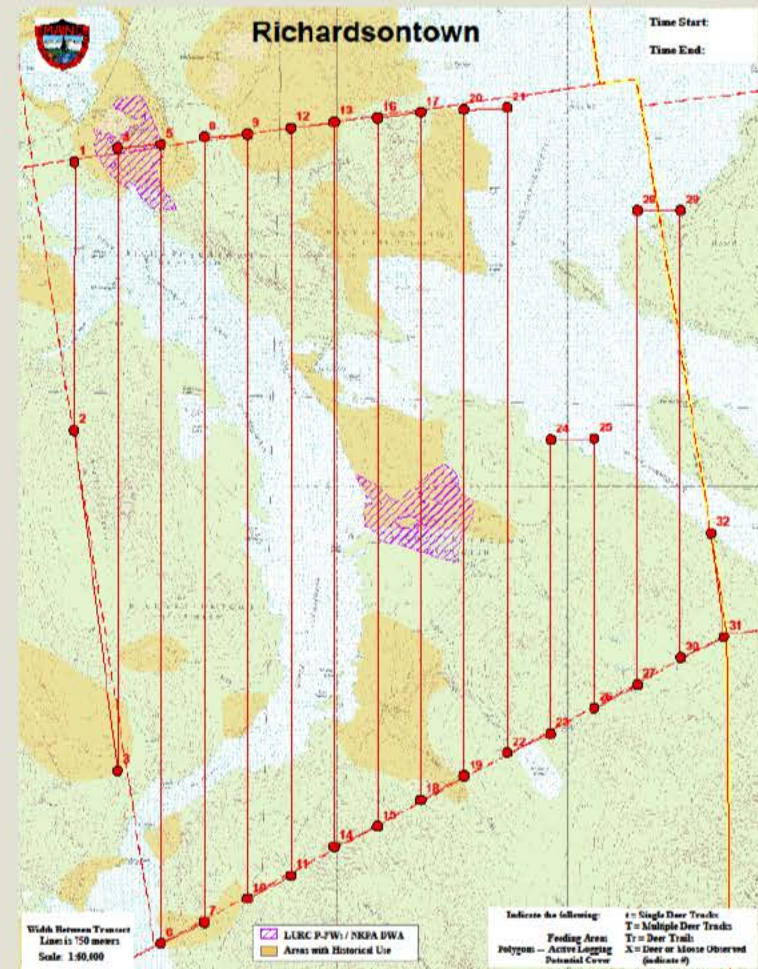
- Annual winter survey of DWAs
 - Restrictive conditions
 - Funded through PR
 - NEWME, LUPC – P-FWs



DWA Surveys – Aerial



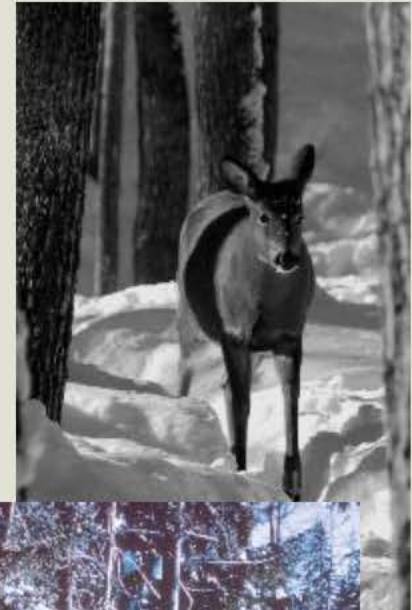
- presence/absence
 - Document single or multiple tracks, trails or deer
 - Timber harvesting, feeding areas and potential cover
- Average 261,000 acres per year over last 6 years (pre-covid)
- Townships/drainages



DWA Surveys – Ground



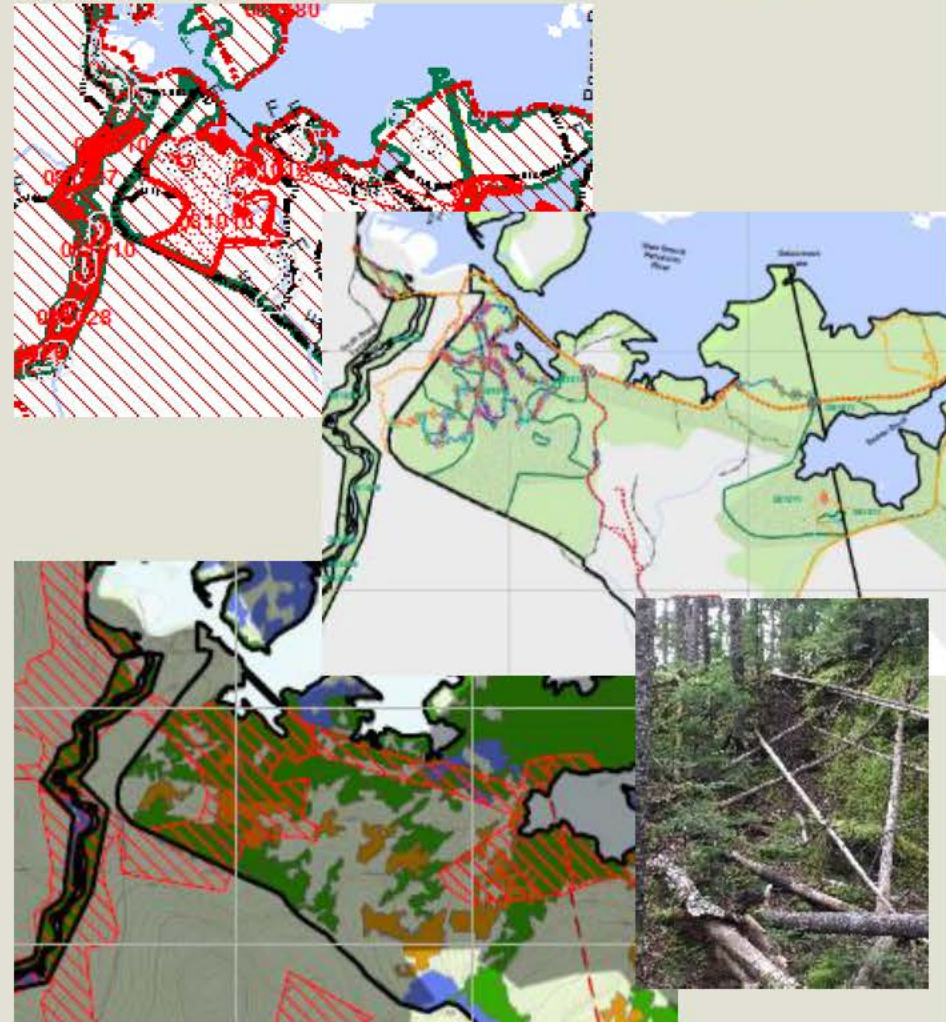
- Ground – presence/absence, use within DWA
- Document tracks, trails, browse, pellets, beds, mortality
- Timber harvesting, feeding areas, habitat assessment
- Average 7,400 acres per year over last 6 years (pre-covid)
- Needs identified by IFW staff, landowner request, P-FW plan agreements, etc.



Wildlife Specialist Review



- Forester–Wildlife Specialist consultation ~9–12 months prior to harvest (no sooner than 6 months unless emergency)
- Desktop & office review of digital & paper records
 - Survey results
 - Harvest history
 - Stand typing
- Map travel corridors based on use data and riparian topography
- Site visit with BPL & IFW staff to develop stand prescriptions
- Calculate prescription impacts on DWA shelter and travel corridors and revisit prescriptions if needed



Wildlife Specialist Review



- P-FW's:
 - Regional Wildlife Biologist and Forester develop a draft plan agreement
 - Plan Agreement finalized
 - Forester notifies Regional Biologist & Wildlife Specialist when harvest begins
 - Regional Biologist & Wildlife Specialist visit harvest operations
 - Regional Biologist & Wildlife Specialist visit harvest area after harvest is complete

Section 5. P-FW Supplement for Deer Wintering Areas

This supplement is part of the Department of Agriculture, Conservation & Forestry Forest Operations Notification form.

To be judged complete, IT MUST BE SUBMITTED WITH THE FOREST OPERATIONS NOTIFICATION form. Please complete the applicable questions in Sections 1-3 of the Forest Operations Notification in addition to this supplement.

The Forest Operation Notification satisfies both Maine Forest Service and the Land Use Planning Commission's (LUPC) notification requirements. You may use the same current LUPC Land Use Guidance Map to satisfy location map requirements for all sections of the Forest Operations Notification.

Activities in P-FW, Deer Wintering Areas (DWA) may begin 14 days after receipt of this form by Maine Forest Service unless you are notified within that period that this P-FW Notification has not been accepted.

QUESTIONS? Call Maine Forest Service at: 207-287-2791

On specific deer wintering areas or their management please call:
Maine Department of Inland Fisheries & Wildlife at: 207-287-5252

14. FW. What is the P-FW number of the DWA you are operating in? 100134

15. FW. How many acres is the operation within the DWA? $315(\text{original})+22(\text{net increase})=337$ total

16 FW. Are any land management roads to be constructed through a P-WL1 wetland within the deer wintering area? YES NO

If YES, you must include the square footage of impact in question 11b, Section 3 of the Forest Operations Notification

17 FW. Date of the meeting: 7 visits between 7/30/19 and 12/30/20

18 FW. Name, title, and affiliation of those present at the site meeting?

Maine Dept. of Inland Fisheries and Wildlife

Mark Caron, Regional Wildlife Biologist
Allen Starr, Assistant Regional Wildlife Biologist
Joe Wiley, Wildlife Biologist Assigned to BPL (former)
Sarah Spencer, Wildlife Biologist Assigned to BPL
Adrianna Bessenaire, Seasonal Wildlife Assistant

Landowner and Agents

David Pierce, BPL Forester
Andrew Wilcox, BPL Forester
Steve Allen, BPL Forester

Wildlife Specialist Review



- Emergency Situations: stand-replacing events
 - Weather-related natural disaster damage (e.g. microburst)
 - Rapid Insect-related change (e.g. spruce bark beetle, spruce budworm)
- Requires a plan agreement and consultation



Allagash, 1975. MFS Photo



New Technology



LiDAR & EFI

- LiDAR: Light Detection and Ranging; pulsed laser measures distances
- Able to assess large areas at once
- Digital Elevation Model (hillshade)
- EFI: Enhanced Forest Inventory—remotely sensed & model-derived metrics for:
 - Canopy cover at various canopy heights
 - Average tree heights
 - Live crown ratio by type (S, H)
 - ...many more

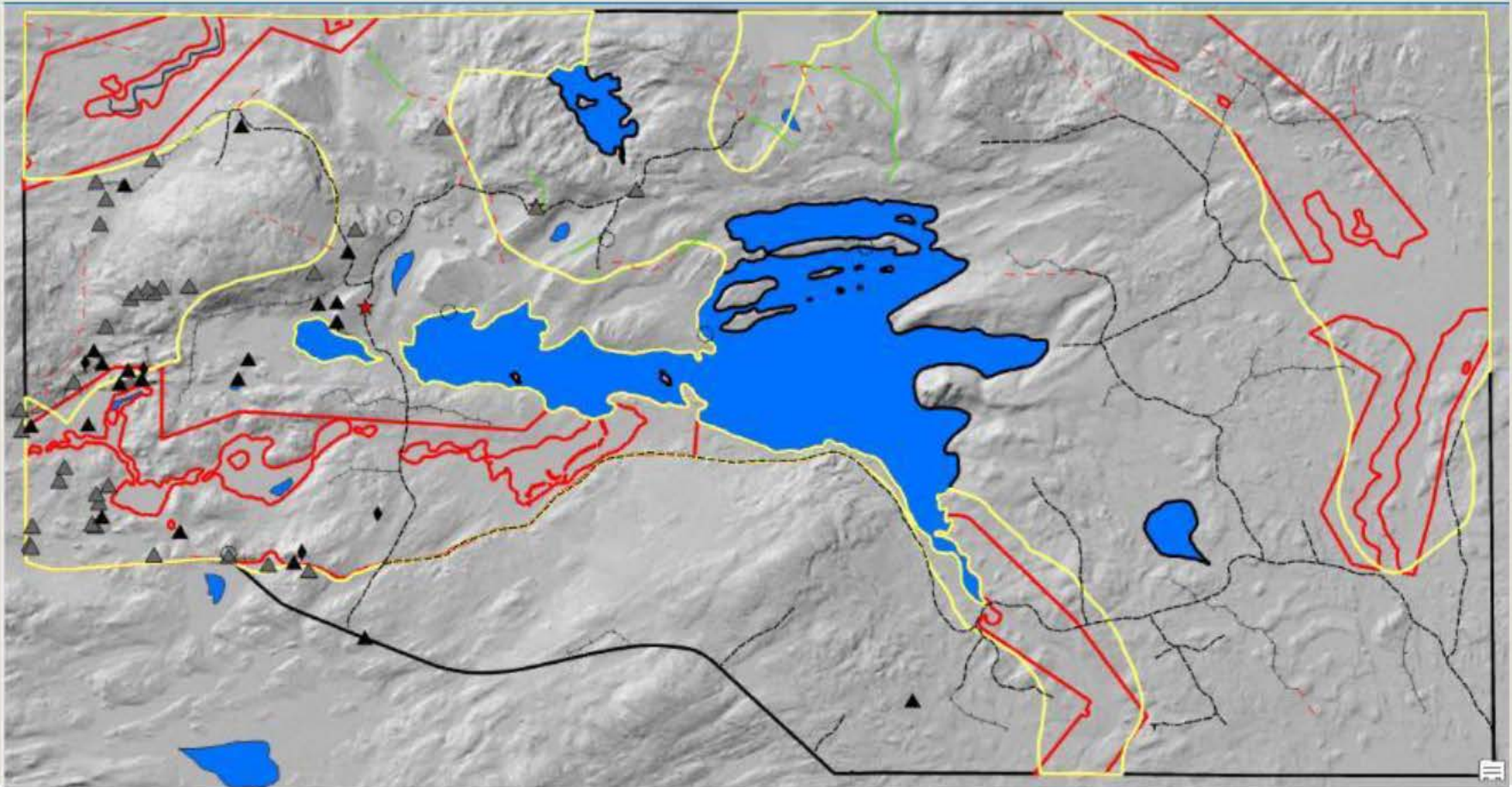
EFI-informed Modeling

- Use the EFI to develop a growth and yield model
- Incorporate DWA landscape metric requirements into the model to inform the harvesting schedule
- Use the process to guide develop a Habitat Management Agreement based on results

New Technology–EFI Completed



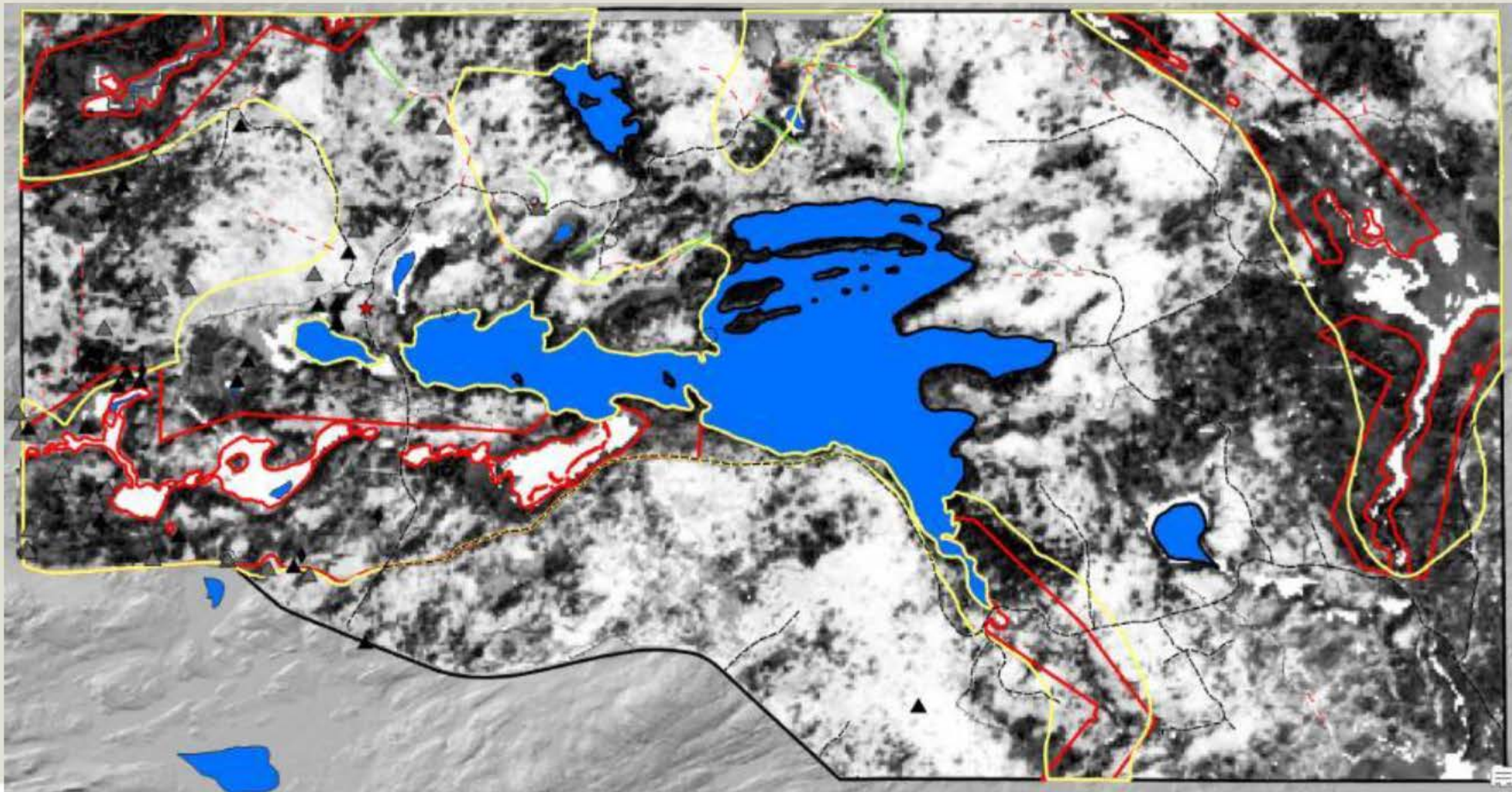
Hillshade– topography affects habitat use



New Technology



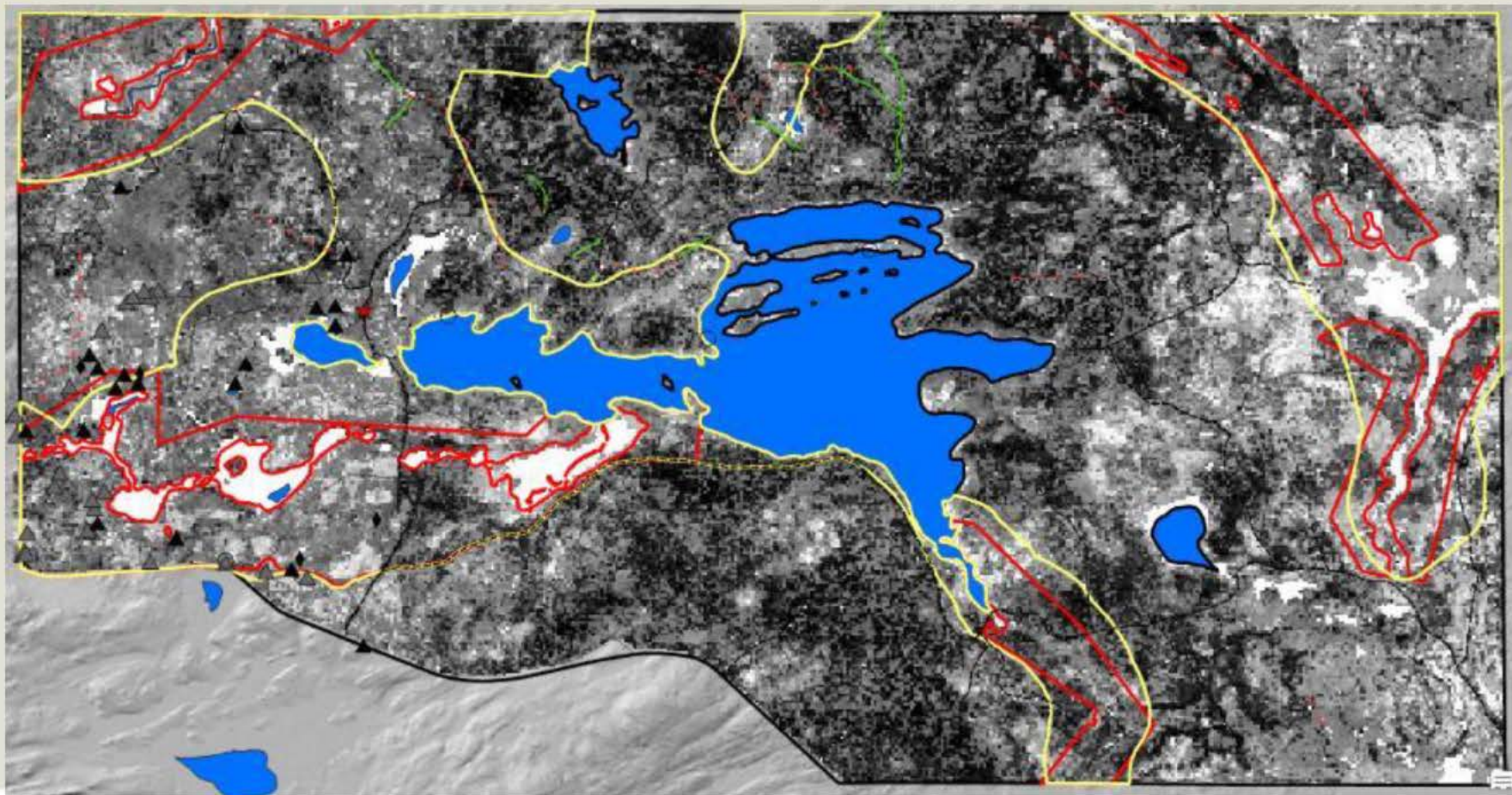
Total Softwood Volume



New Technology



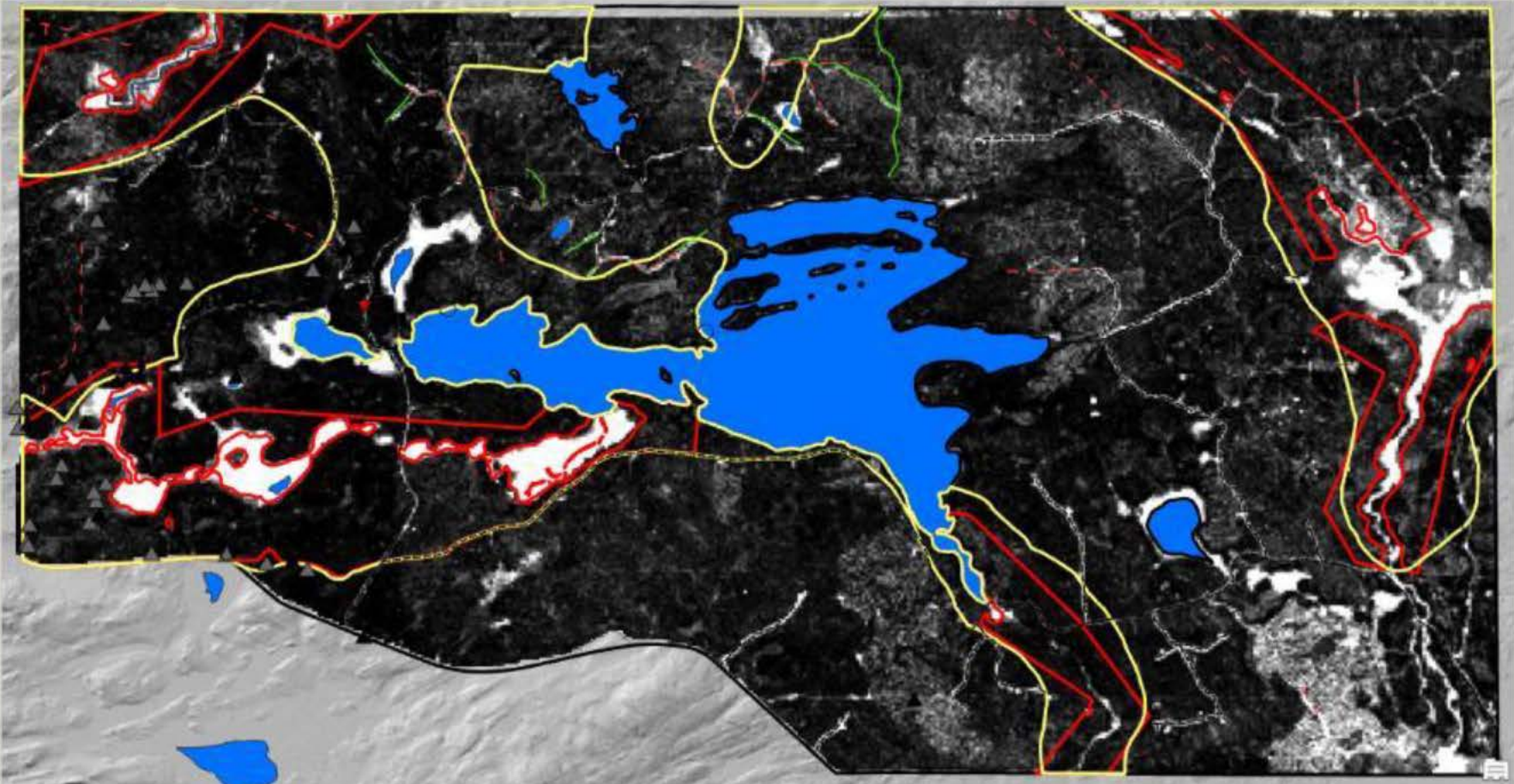
Live Crown Ratio (softwood)– quality of cover



New Technology



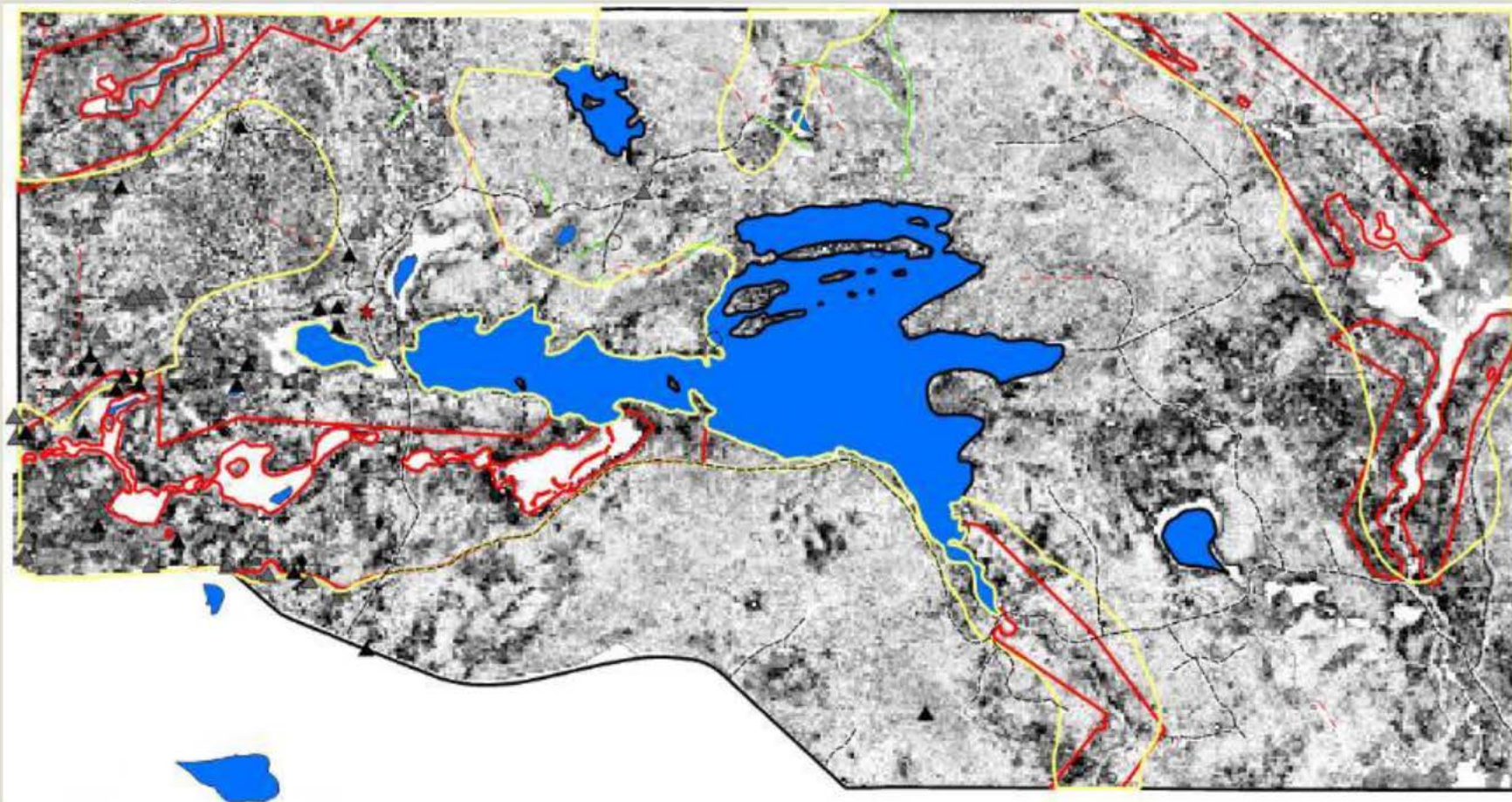
Canopy Cover- infers conforming cover



New Technology



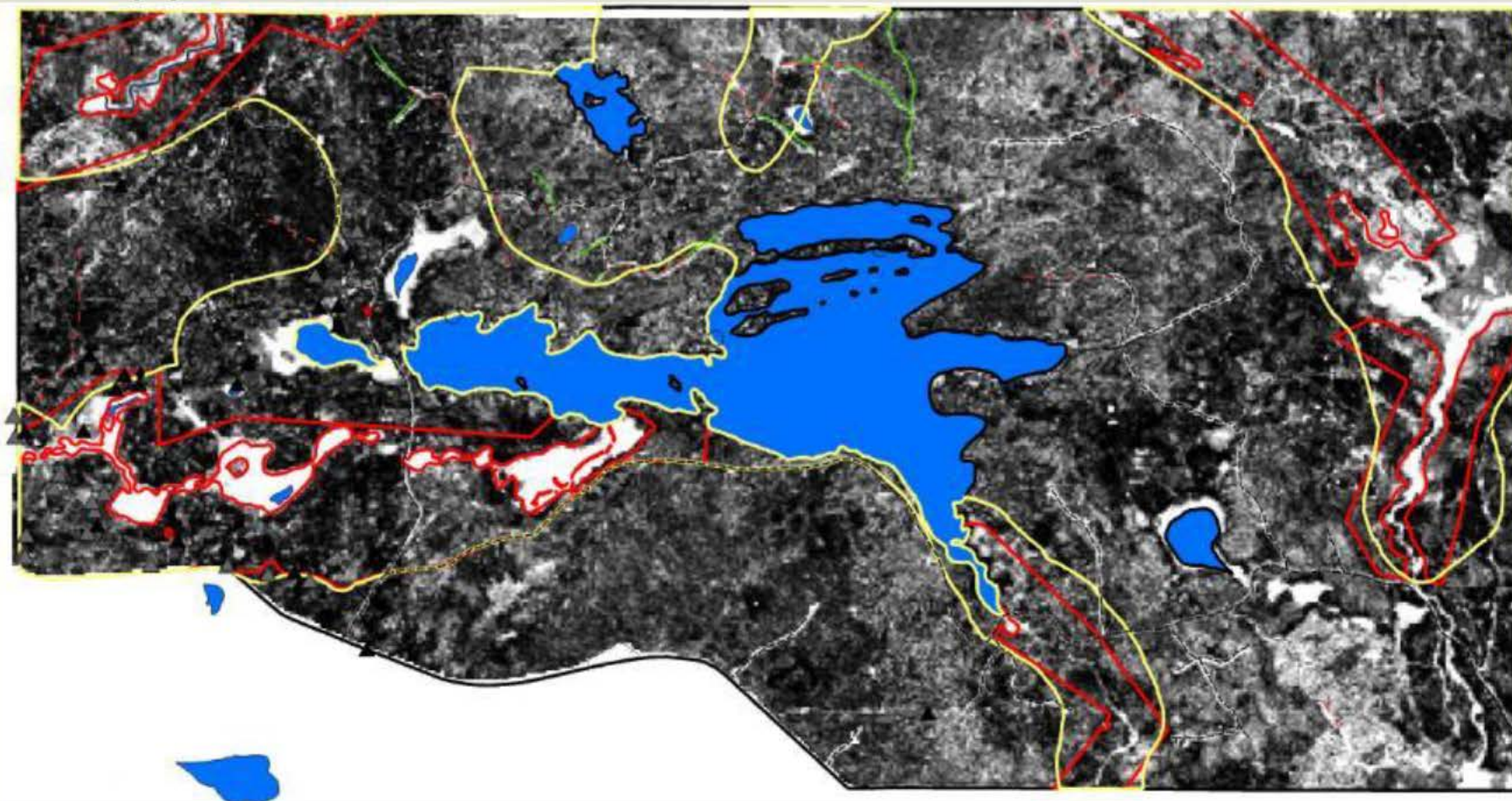
Canopy Cover- 0-15ft tall



New Technology



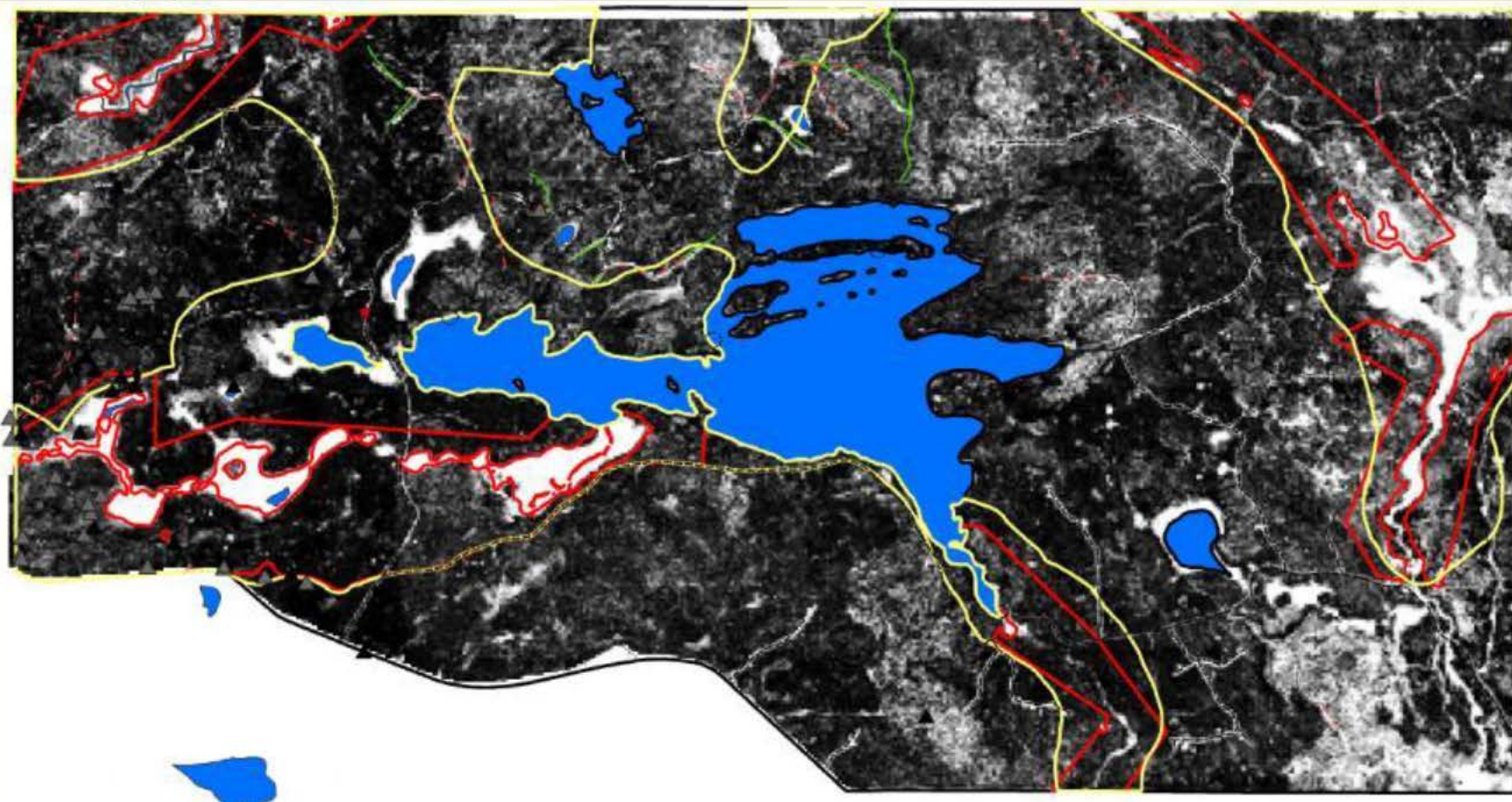
Canopy Cover- 15-35ft tall



New Technology



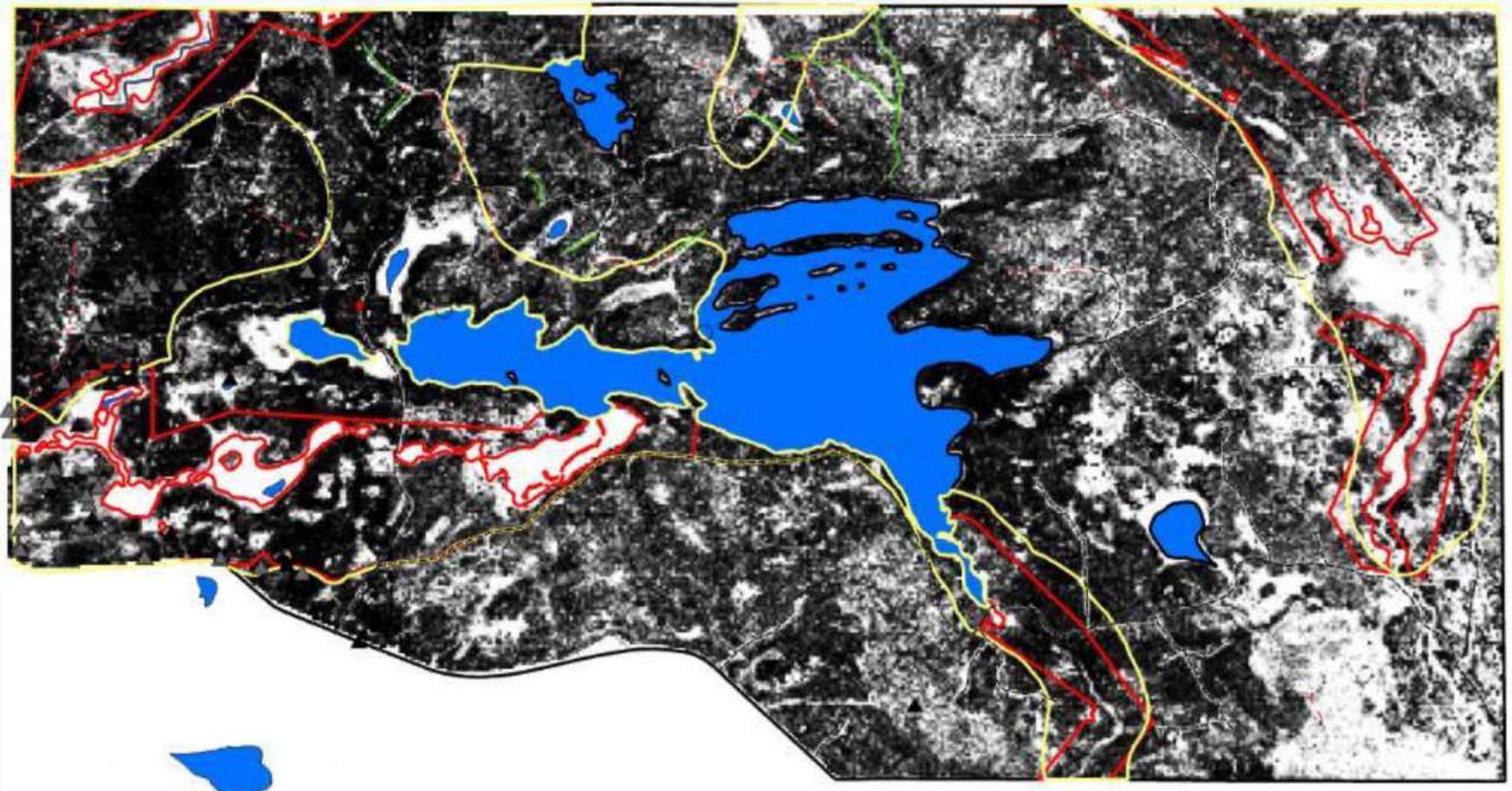
Canopy Cover- 35-50ft tall



New Technology



Canopy Cover- 50-75ft tall



New Technology

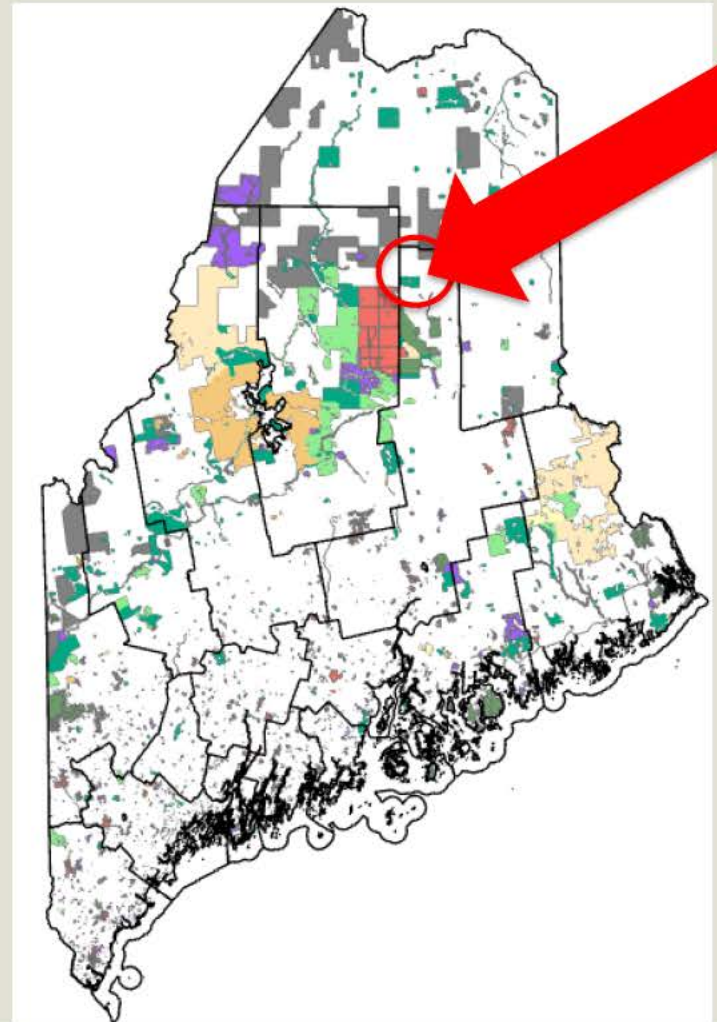


Next Step: spatially explicit growth & yield model to inform management

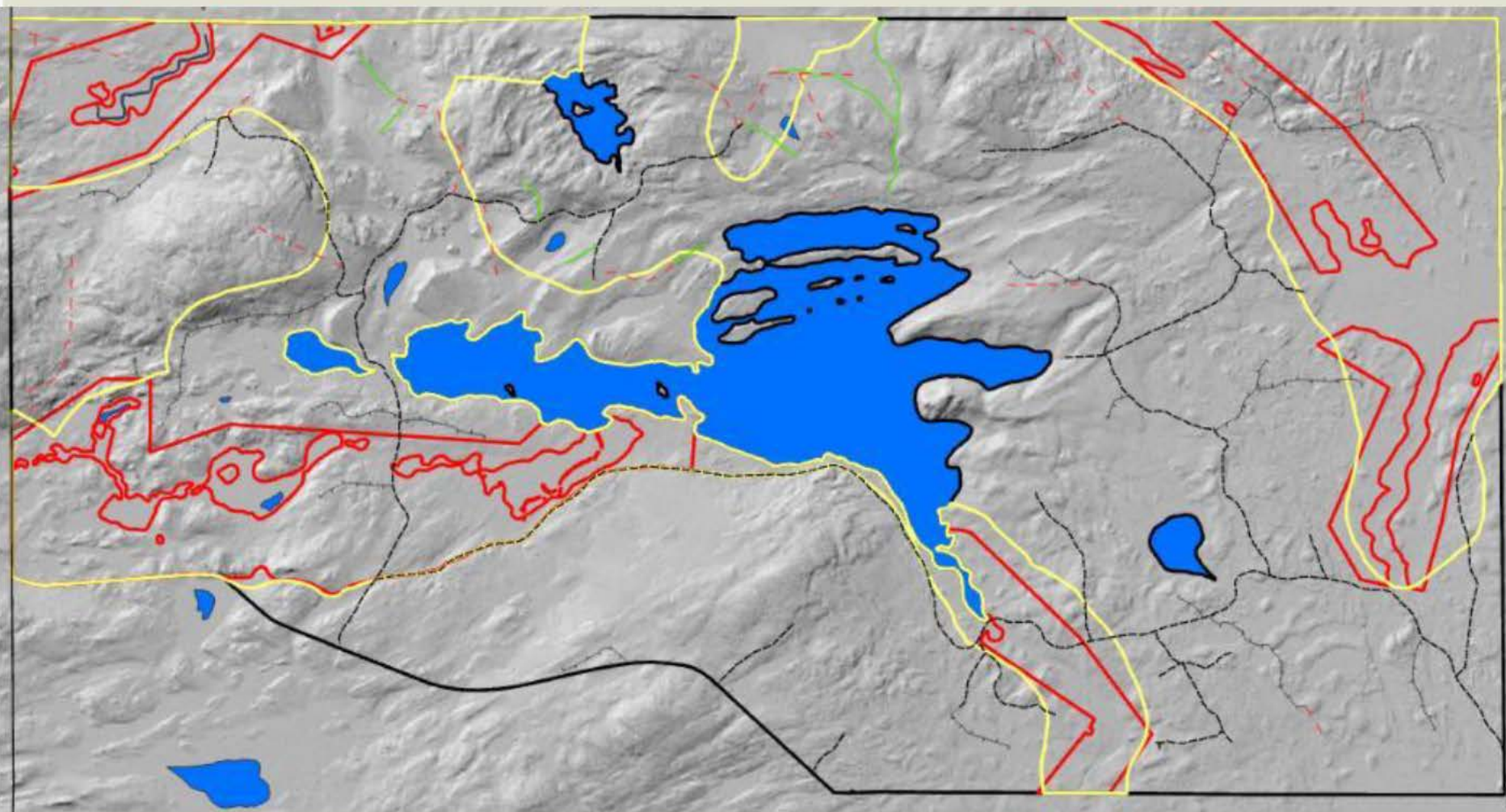
Field Visit August 11, 2022

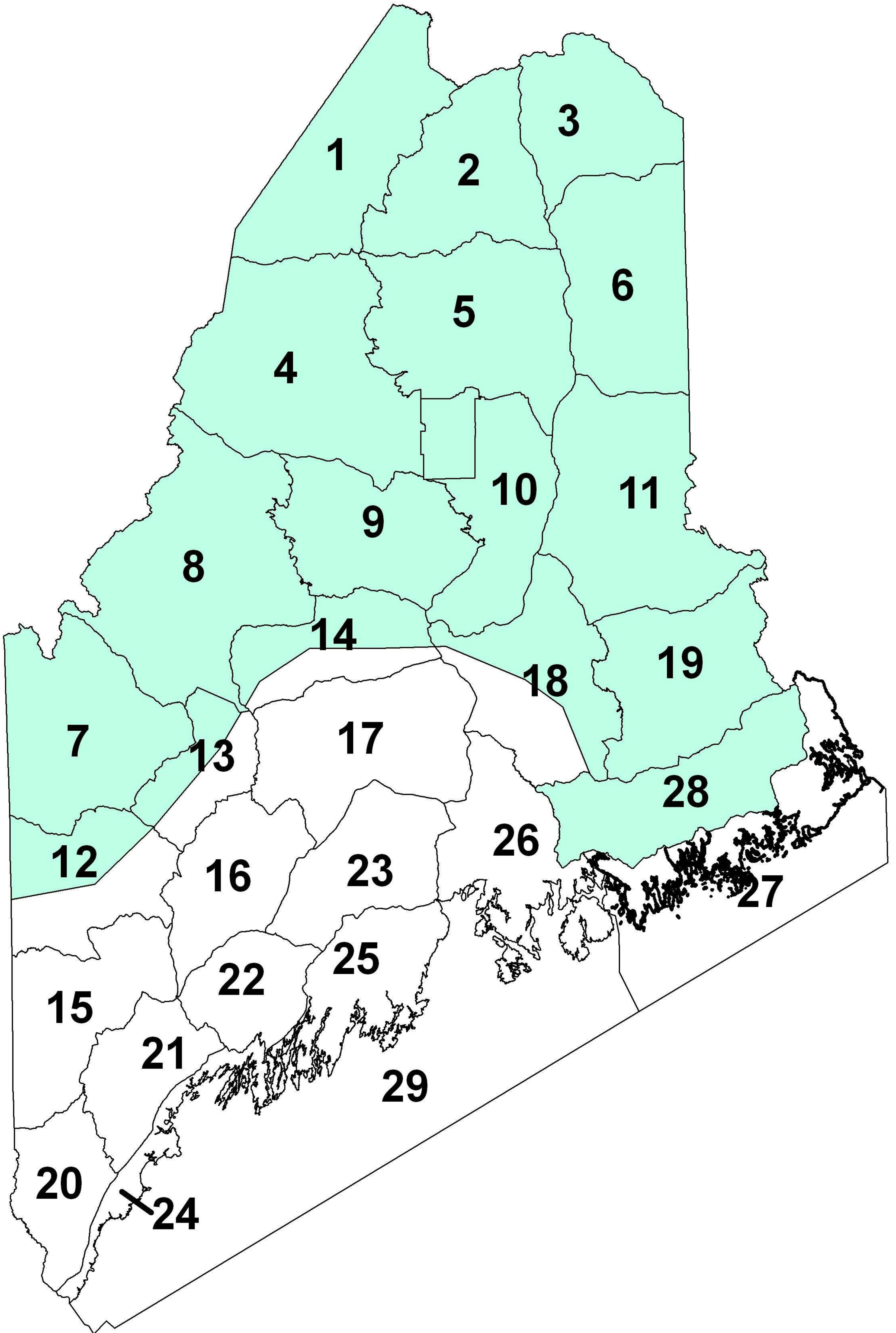


- Scraggly Lake Unit (Aroostook Hills Region Management Plan)
- ~9,000ac near NE corner of Baxter State Park
- 4,191 ac managed cooperatively with previous owner & continues to consult on.
- 1,698 ac in 4 P-FW's
- Location of the EFI & Modeling project



Field Visit August 11, 2022





§1805A. Designation of Deer Wintering Areas

The director may designate Deer Wintering Areas on parcels of land under the jurisdiction of the bureau. These lands shall consist of high-quality deer wintering habitat with a documented history of significant deer use. These lands must be managed with deer conservation as the highest management priority. The director may designate deer wintering areas or remove the designation of a parcel of land as a deer wintering area only in conjunction with the adoption of a Habitat Management Agreement developed in collaboration with the Department of Inland Fisheries and Wildlife. Land so designated shall be eligible for expenditure of funds from the “Deer Management Fund (Add specifics)...” The designation of deer wintering areas under this section does not preclude or discourage the Department from managing other parcels of land to promote habitat for deer. The Department of Inland Fisheries and Wildlife shall include a summary of additions or changes to BPL Deer Wintering Areas in (Asking Crystal or Emily to complete this sentence – some existing annual report to the legislature and ideally IFW would take the lead on the reporting?)

§10264. Maine Deer Management Fund

The Maine Deer Management Fund, referred to in this section as "the fund," is established within the department as a nonlapsing fund to be used by the commissioner to fund or assist in funding predator control and to acquire or enhance deer habitat. If the funds are used to directly enhance or manipulate deer wintering areas on lands managed by the Bureau of Public Lands, the lands must be designated as deer wintering area pursuant to §1805A. The commissioner shall establish on the department's online licensing system checkoff options that allow a person to donate money for predator control or deer habitat acquisition or enhancement. The checkoff options must be prominently displayed and contain web links to information about how the checkoff revenues have been and will be used. The commissioner shall also print in a prominent place on every paper application for a hunting license checkoff options that allow a person to donate money to the fund for predator control or deer habitat acquisition or enhancement. Revenues from the checkoffs must be deposited in the fund and used for purposes indicated by the checkoffs. [PL 2021, c. 409, §6 (AMD).]

Notwithstanding [section 10801, subsection 4](#), \$2 of each deer registration fee collected under [section 12301-A, subsection 3, paragraph C](#) must be deposited in the fund. Fifty percent of the funds deposited in the fund from the deer registration fees must be used for predator control purposes and 50% of the deposited fees must be used to acquire or enhance deer habitat. In addition, the revenue from each antlerless deer permit fee collected under [section 11152, subsection 9](#), minus administrative costs, must be deposited in the fund. The commissioner may accept and deposit into the fund monetary gifts, donations or other contributions from public or private sources for the purposes specified in this section. The fund must be held separate and apart from all other money, funds and accounts. The department shall report annually to the joint standing committee of the Legislature having jurisdiction over inland fisheries and wildlife matters on the fund and its utilization.

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