

## Howland Forest – Small-Scale IFM Project



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NACW – Reserve Project Showcase

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# Forest Solutions Unit

- **Forestry focused carbon accountants**
  - » Majority owned by VT farms; work on behalf of forest landowners
  - » Landowners retain full ownership of credits
  - » UVM Carbon Dynamics Lab
- **Forest Carbon Services**
  - » Forest carbon feasibility studies
  - » Forest carbon inventory
  - » Growth and yield modeling and carbon quant.
  - » Project listing, verification and registration management
- **7 CAR Forest C Projects**
  - » 5 in Maine; 1 in New Hampshire; and 1 in New York
  - » Projects range from 550-9,500 acres
  - » Trusts, Foundations and Private Landowners



# Case Study: Howland Research Forest

- **1. Small Forest Carbon Project**

- » 557 acre tract of mature, lowland Spruce-Fir forest located in Central Maine
- » Geo-political context: private landowners own >80% of NE forestland
- » Moose, bear, fox, threatened Northern Bog Lemming



- **2. Profitability of projects is determine by multiple factors**

- » Forest type, silvicultural prescription, size, and
- » Initial stocking level





# Inventory Methods

## Stratified Systematic Sampling



## Carbon Pools



## Plots

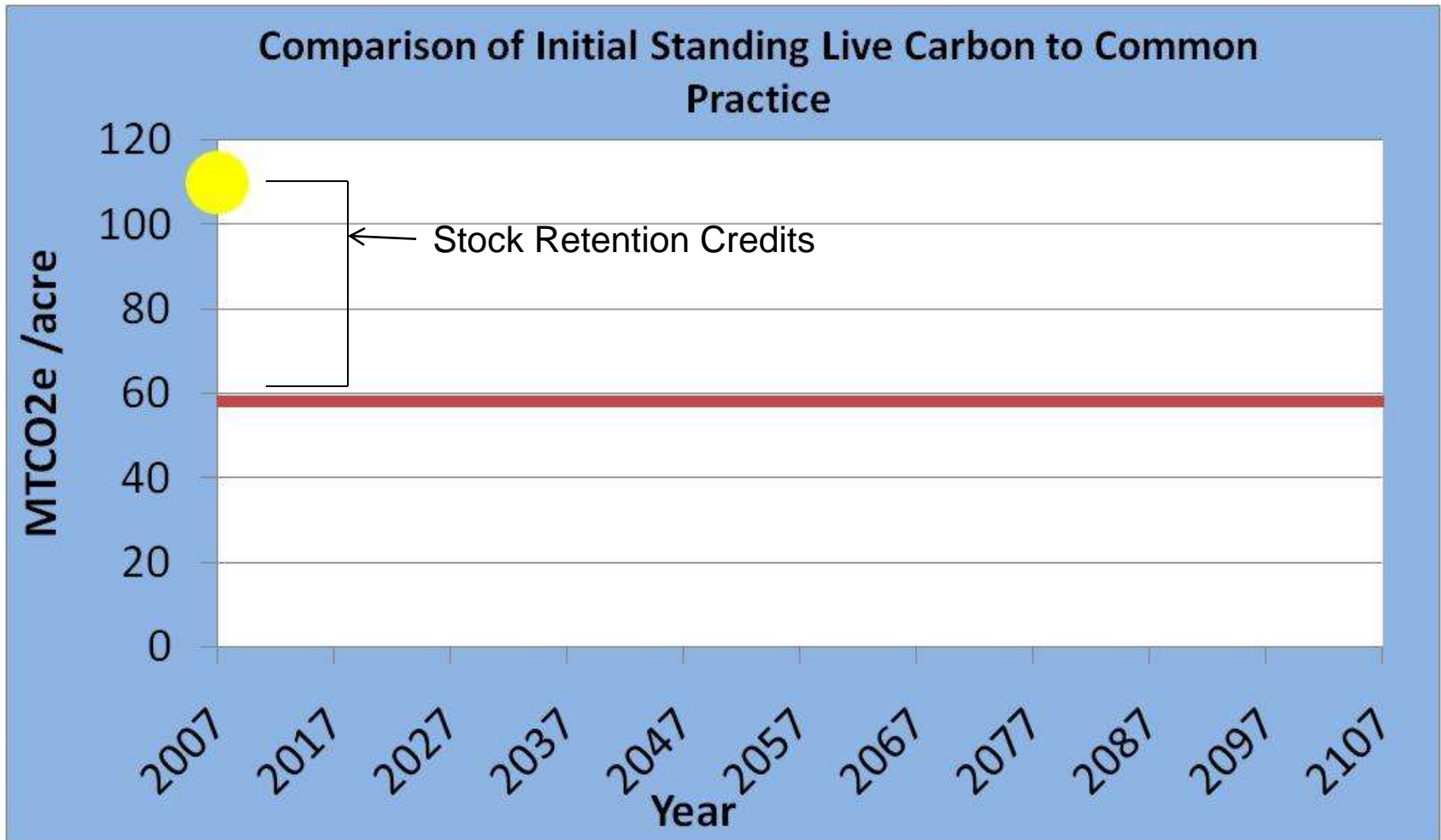


## QA/QC

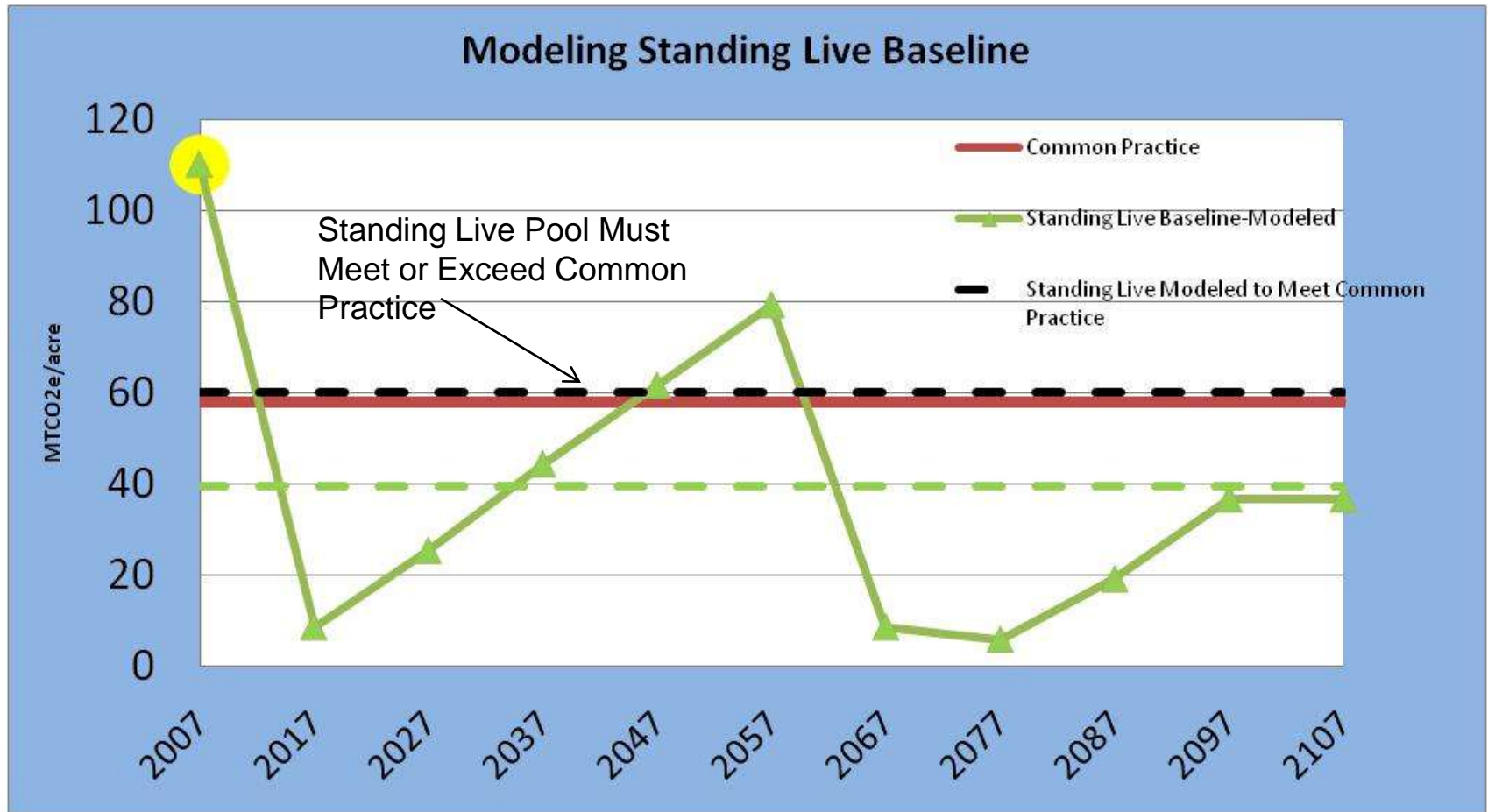


Rewarding sustainability.

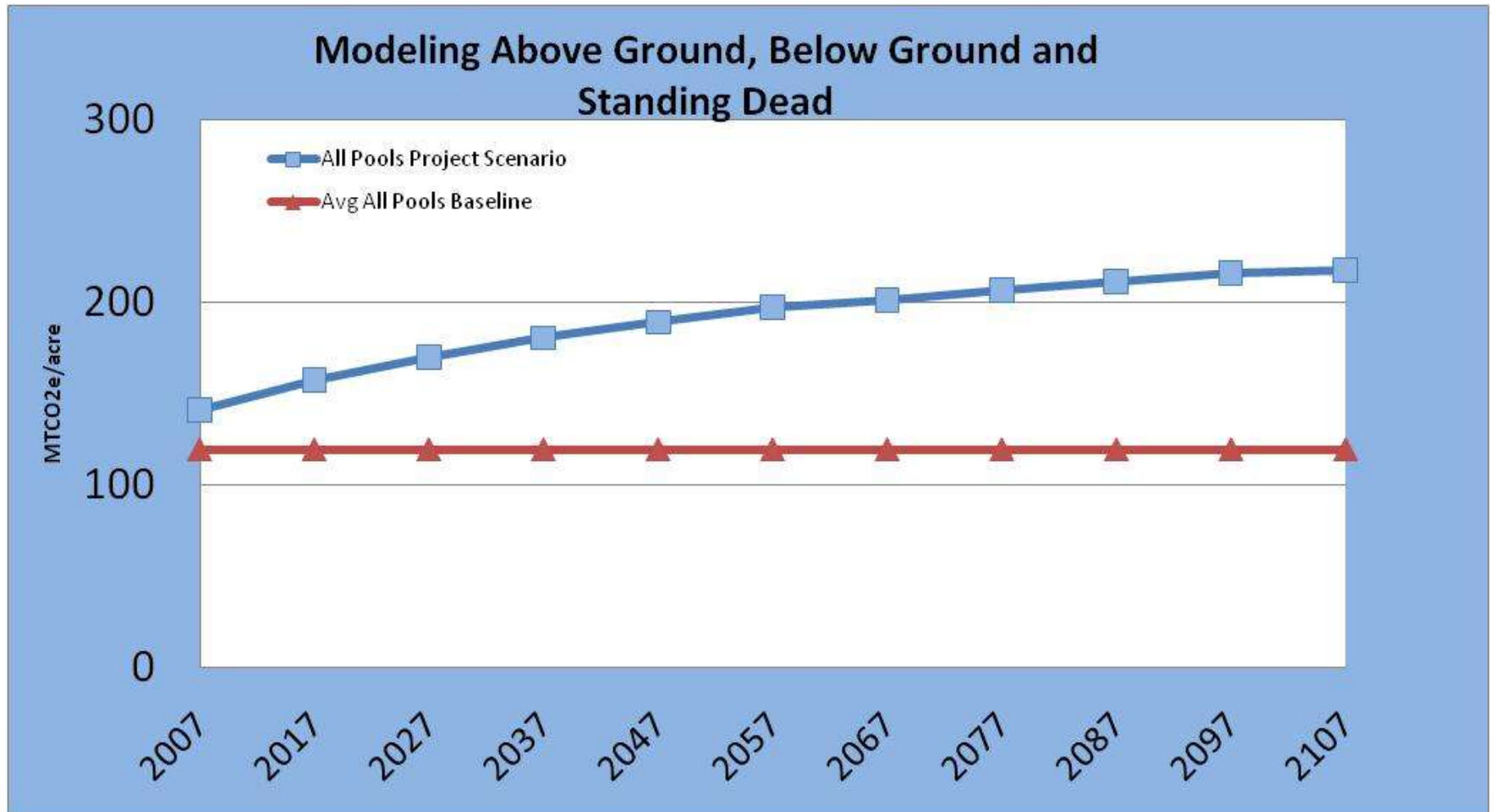
# Results: Comparing Initial Standing Live Carbon to Common Practice



# Modeling (FVS) Standing Live Baseline



# Growth Credits: Modeling All Required Carbon Pools



# Challenges



- Changing rules of the game, i.e. optional pools, volumetric equations
- AB 32 rules on aggregation and verification
- Howland is divided by two Supersections
  - » Central Maine & Fundy Coast & Ebayment/Maine – New Brunswick
- Modeling: Cannot use FVS carbon equations (Jenkins equations)
- Protocol and Northeast Forests
  - » <5” is a significant pool in the Northeast!
- 100 year permanence



# Interesting Findings

- **Aggregation protocol provides significant costs savings for both inventory and verification**
- **Trees < 5” can be a significant pool in NE**
- **A small forest carbon project can be profitable given if it’s well stocked and/or in an aggregate**
  - » 18,000 CRTs over 10 years
- **Further research on value of conservation easements**

# Contact

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