



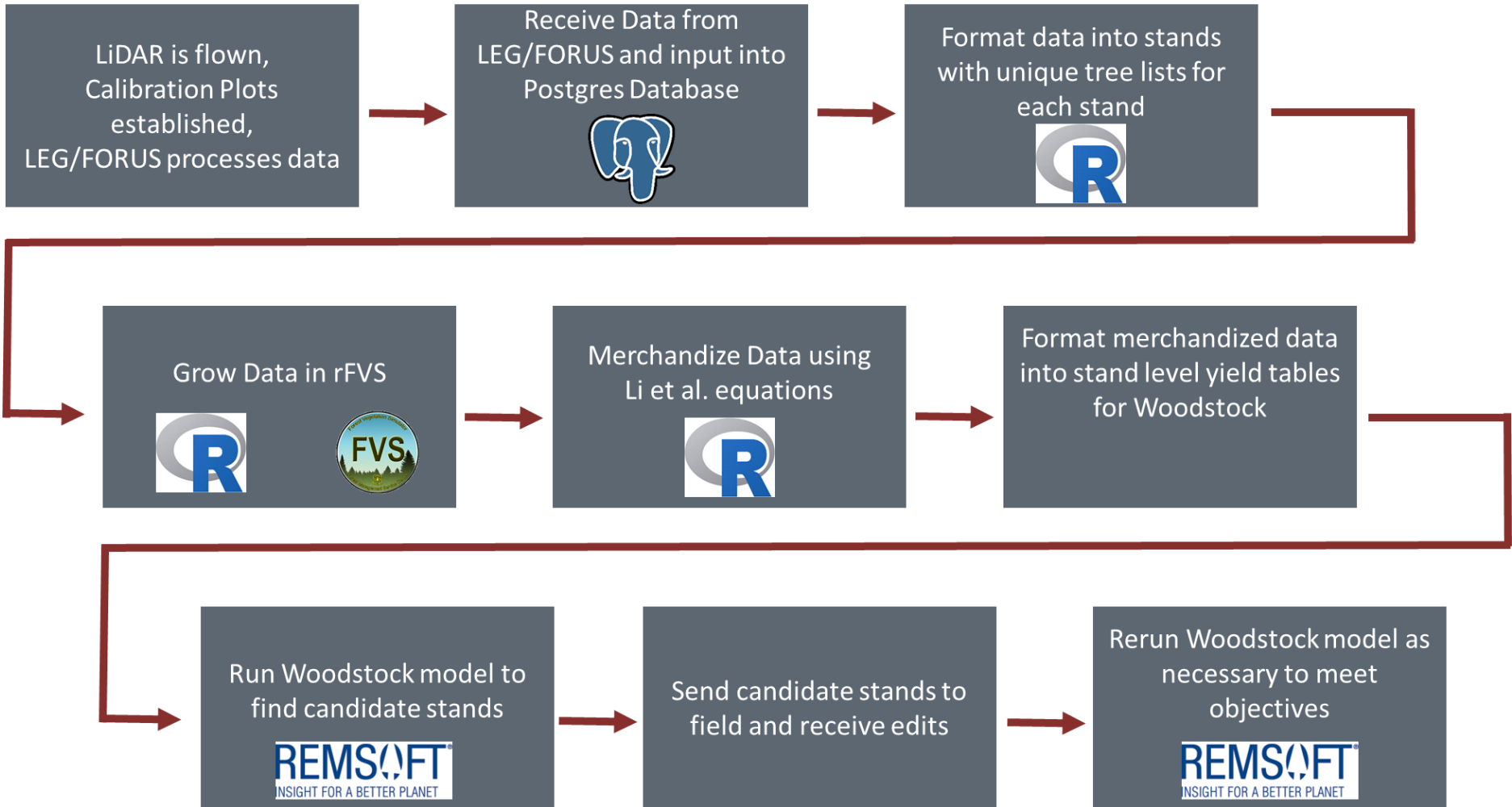
AMERICAN FOREST  
MANAGEMENT

# Harvest Planning with LiDAR

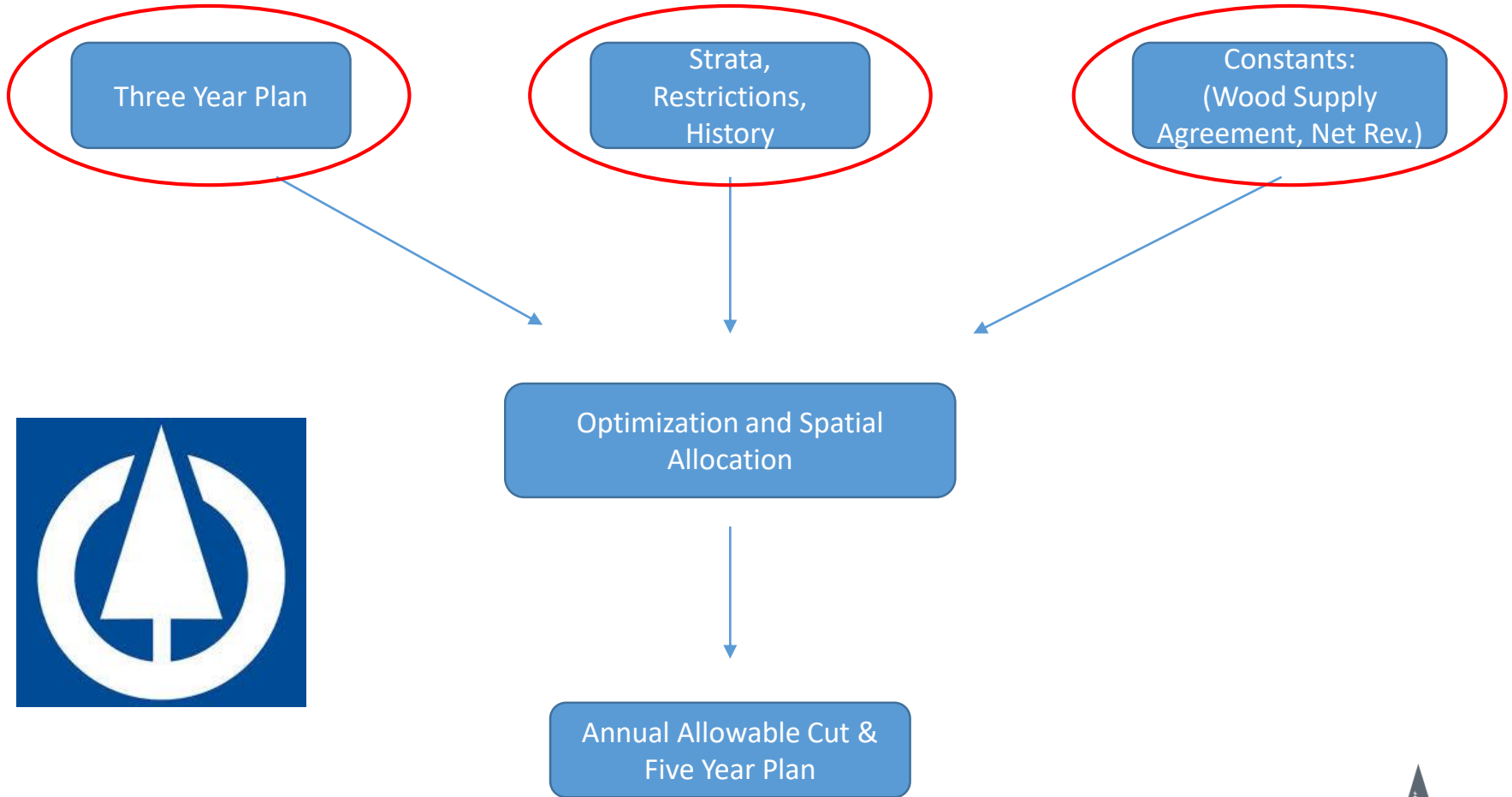


- American Forest Management provides forest management and real estate services
- Our major client in Maine and New Hampshire is BBC Land, owned by John Malone
- BBC lands ready for timber inventory upgrade
- Huge thanks to JD Irving for their willingness to meet with us and share learnings/process
- Partnered with Leading Edge on data collection
- Partnered with Lim Geomatics on platform to host EFI (enhanced forest inventory) and other data

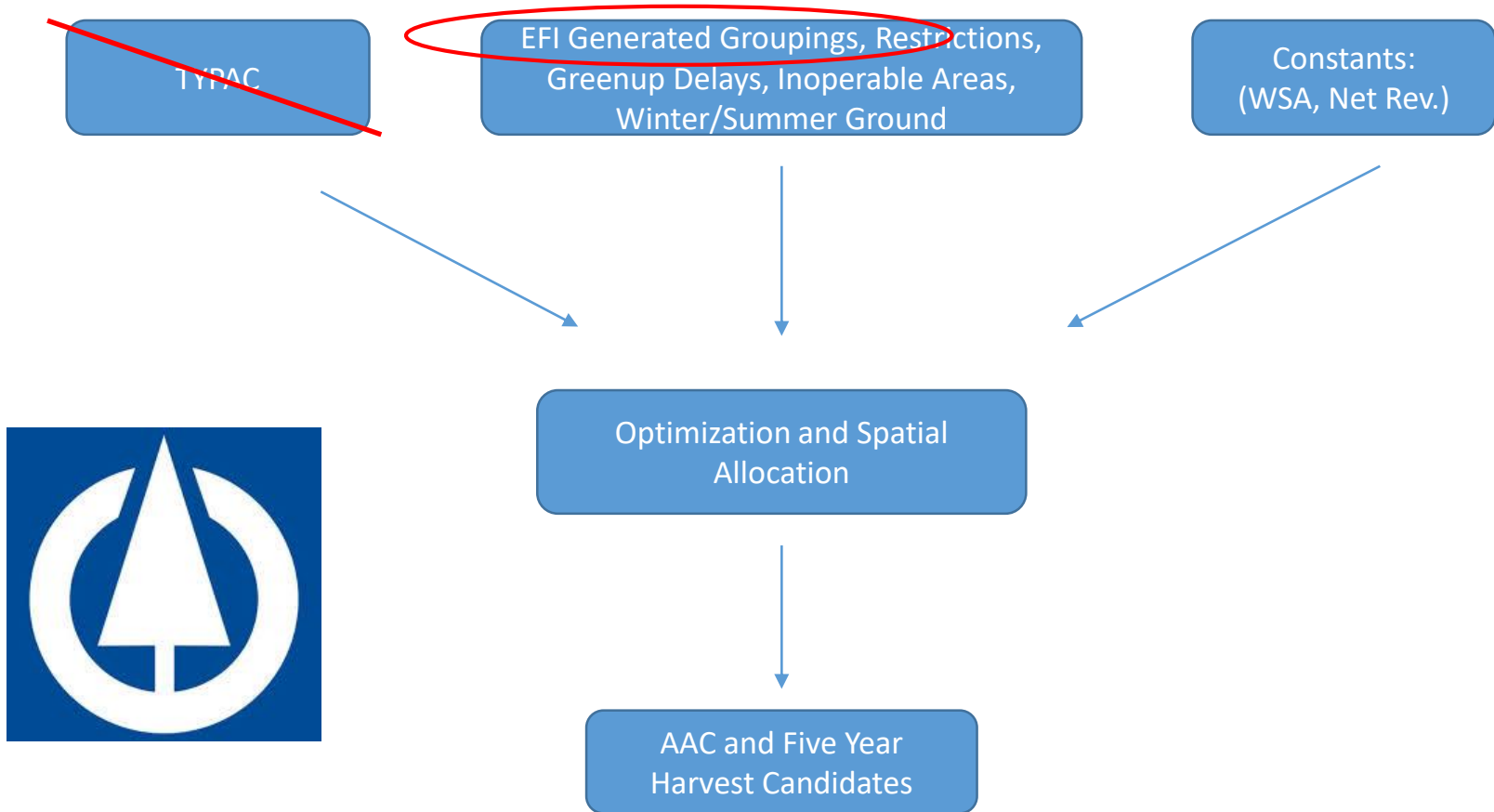
- Thanks to Elizabeth Farrell, Mike Howie and Bob Young for their leadership
- Use of LiDAR is new to some but not new to all
- Significant time required to change processes:
  - a) understanding data
  - b) reviewing timber harvest planning
  - c) prepare to reassign roles & responsibilities

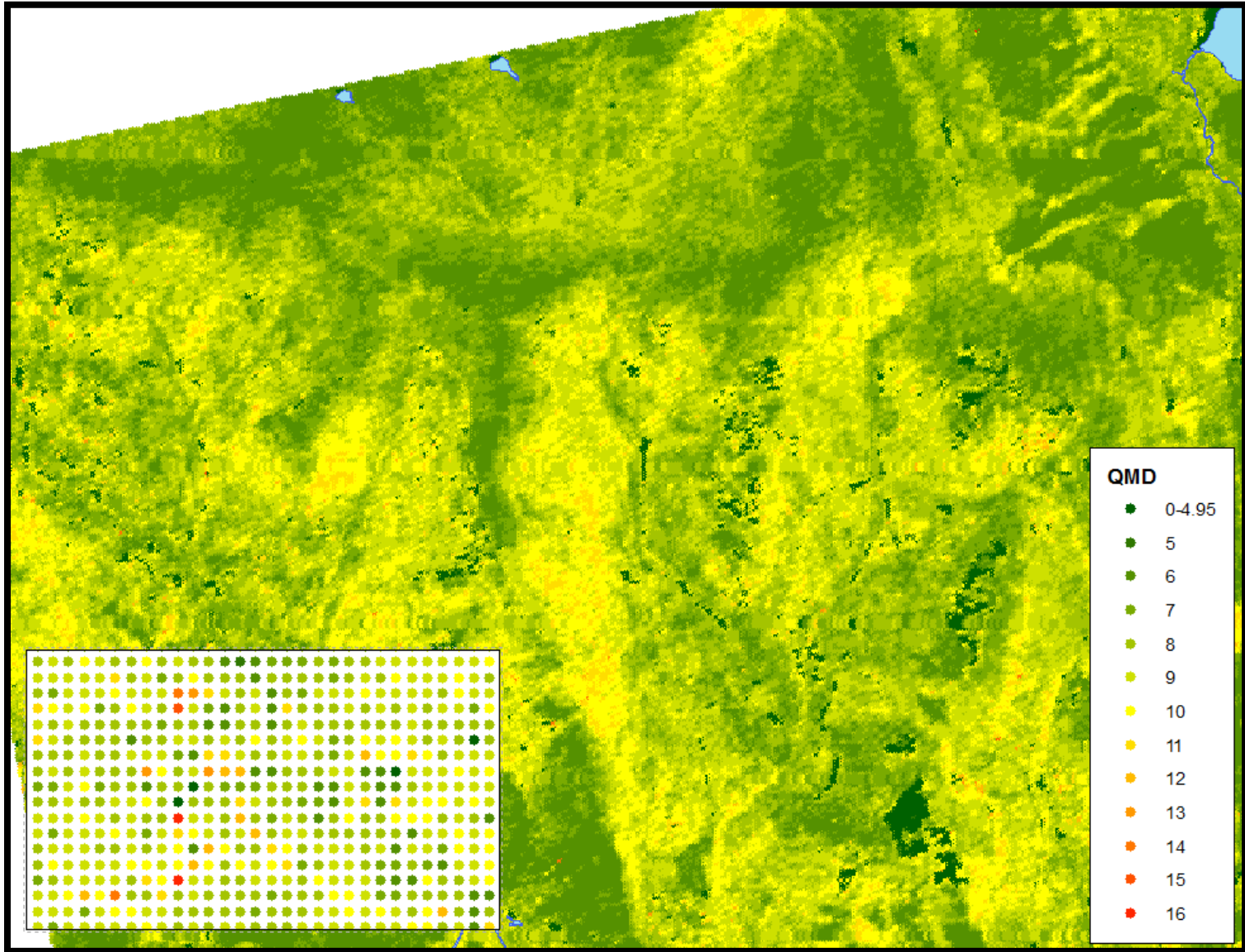


# Current Process



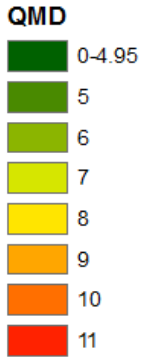
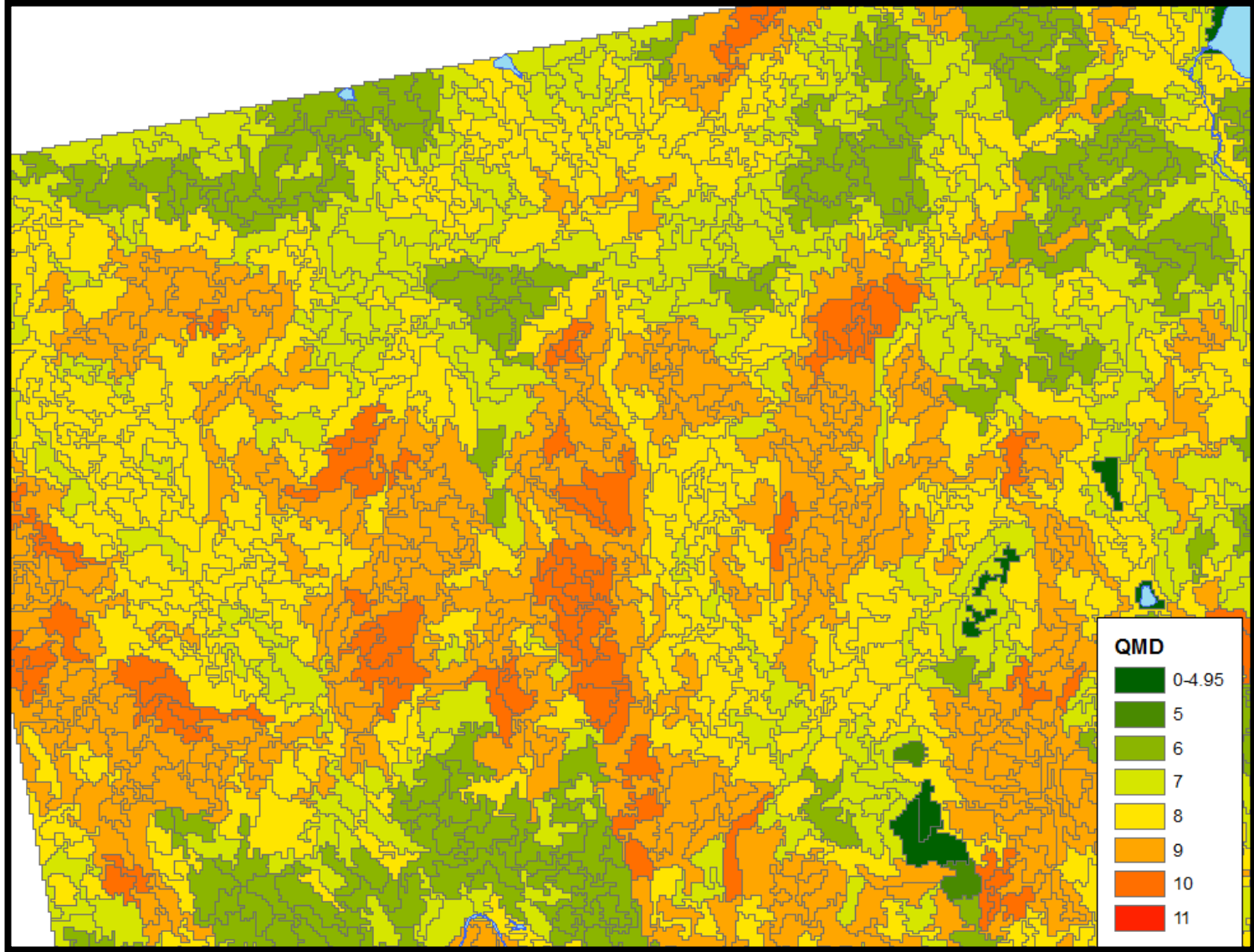
# New Process





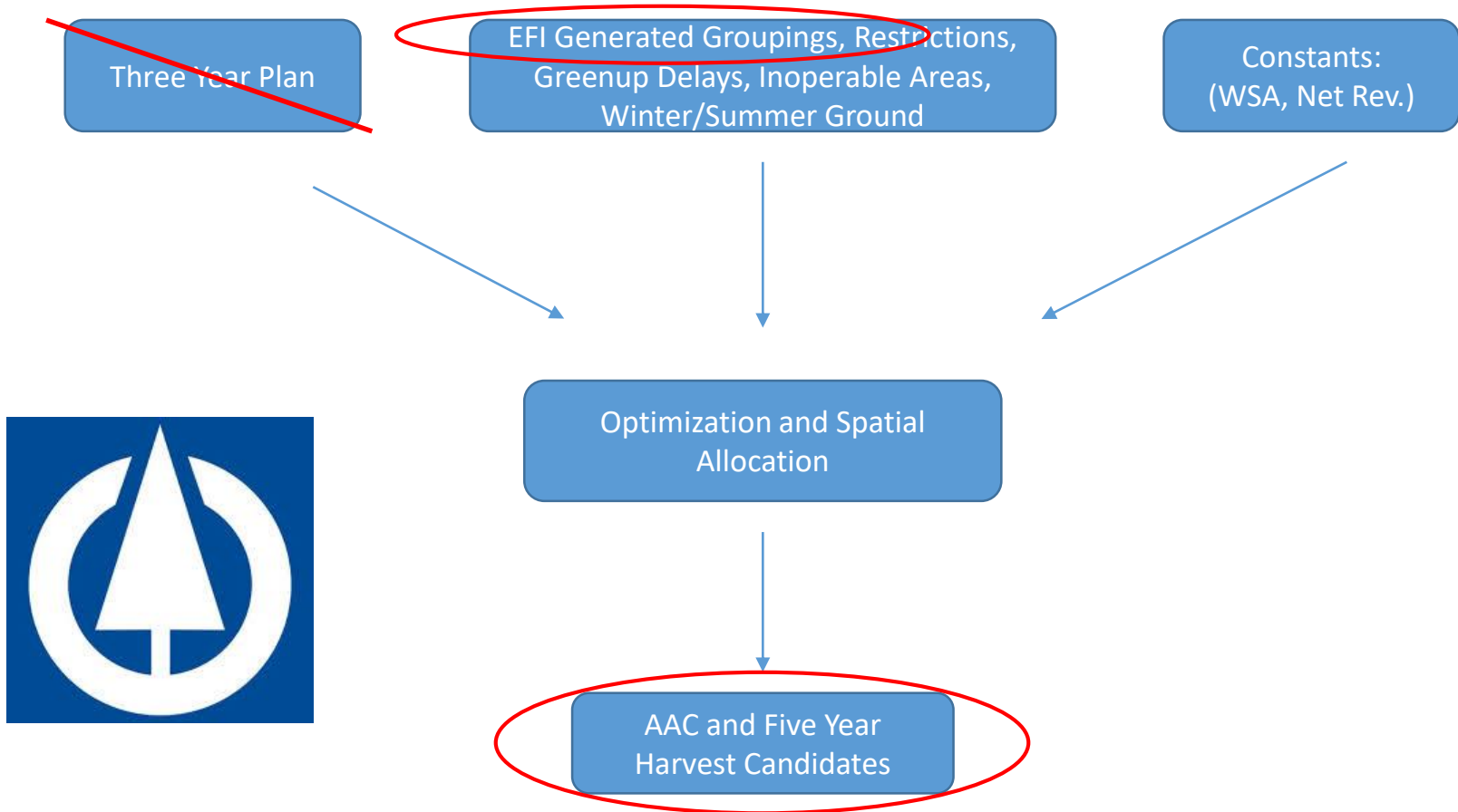
QMD	
●	0-4.95
●	5
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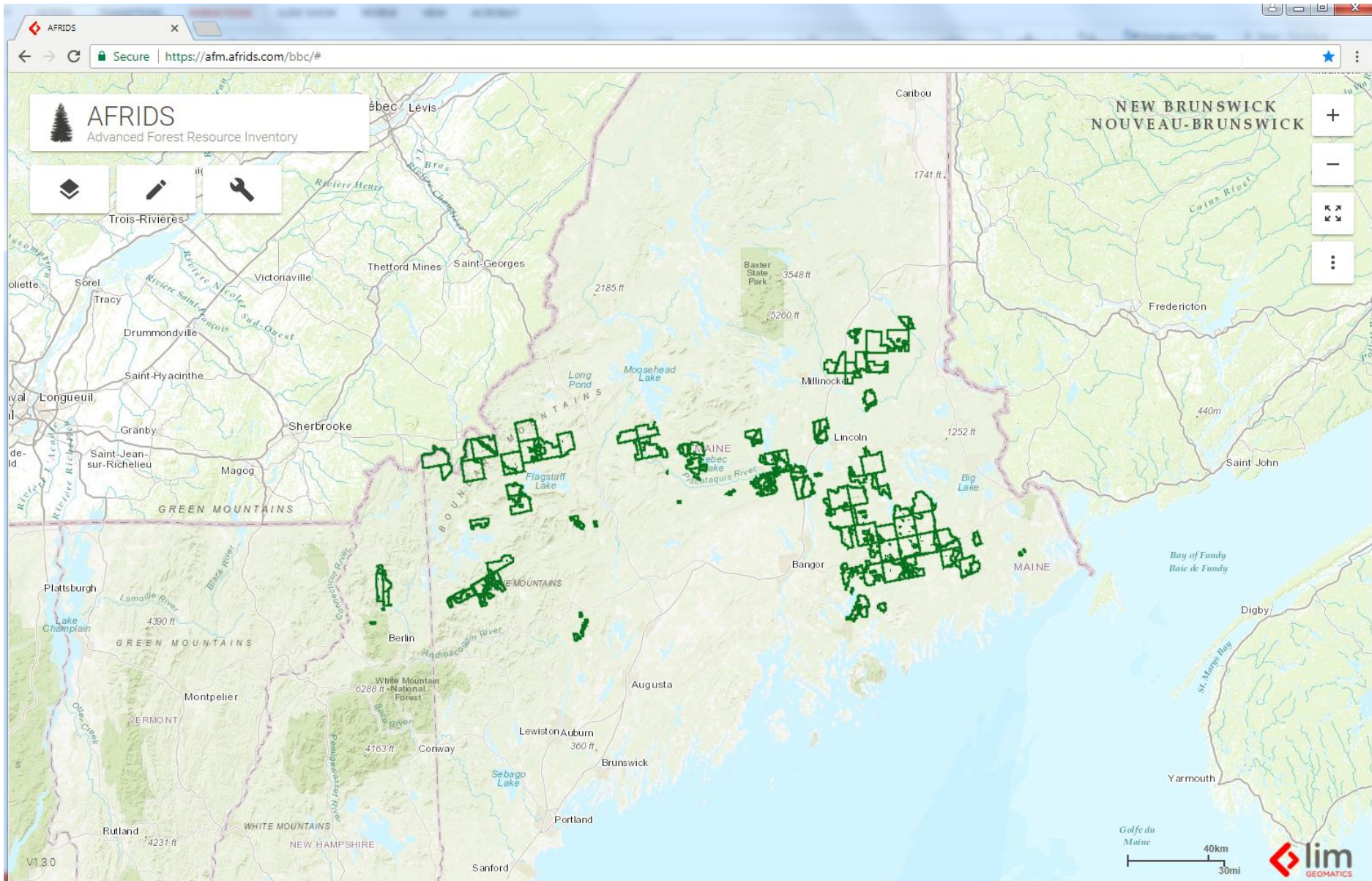


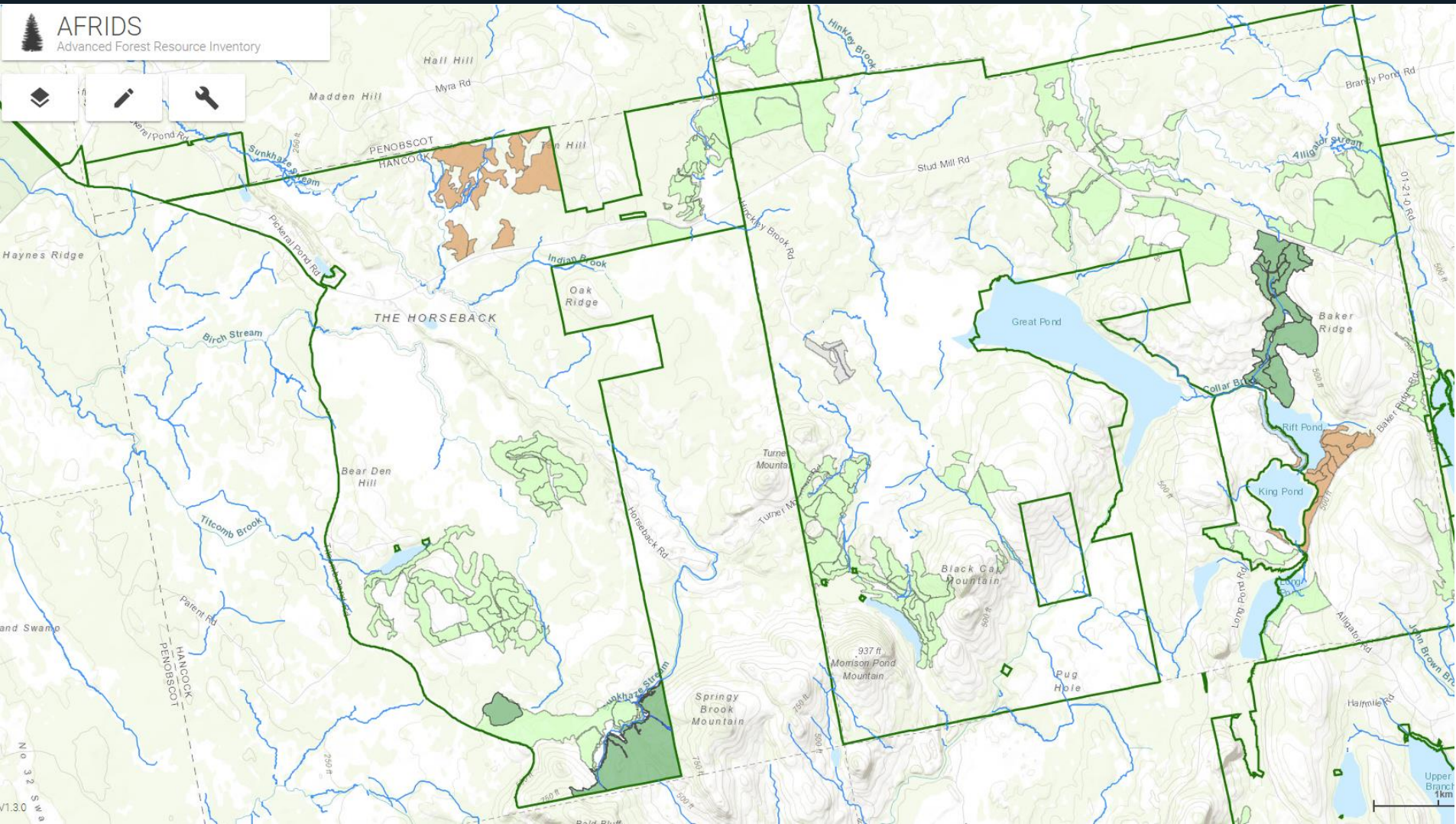




# New Process







## Role of the Planner:

Utilize the modelled candidates to assemble a seasonal logging plan that accounts for operational efficiencies and constraints.



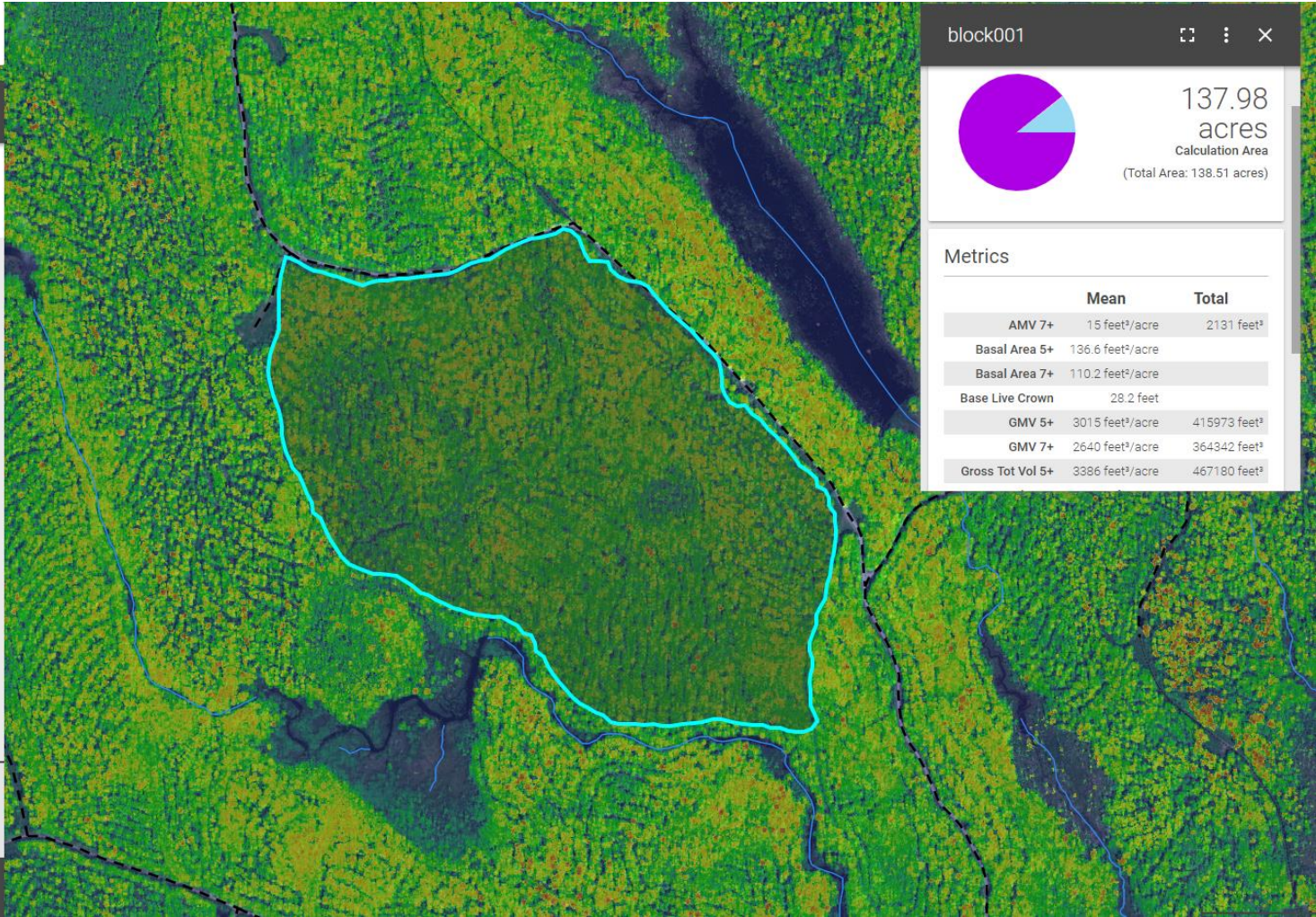
< Block Control 

block001

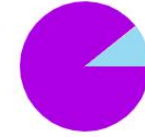
✓ 137.98 acres Area 3015 feet<sup>3</sup>/acre  
Gross Merch Volume 5+

All blocks

✓ 137.98 acres Area 3015 feet<sup>3</sup>/acre  
Gross Merch Volume 5+



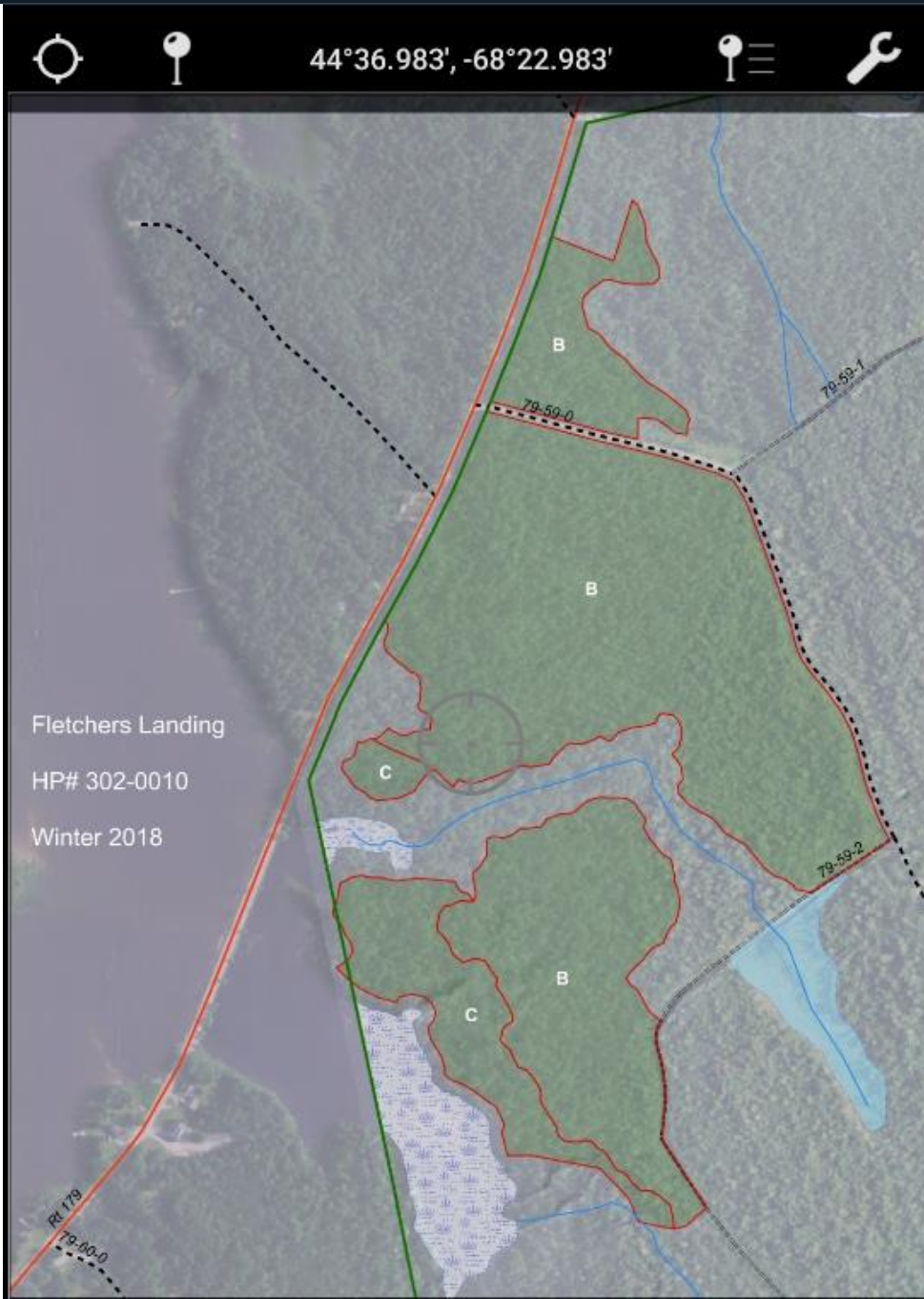
block001   



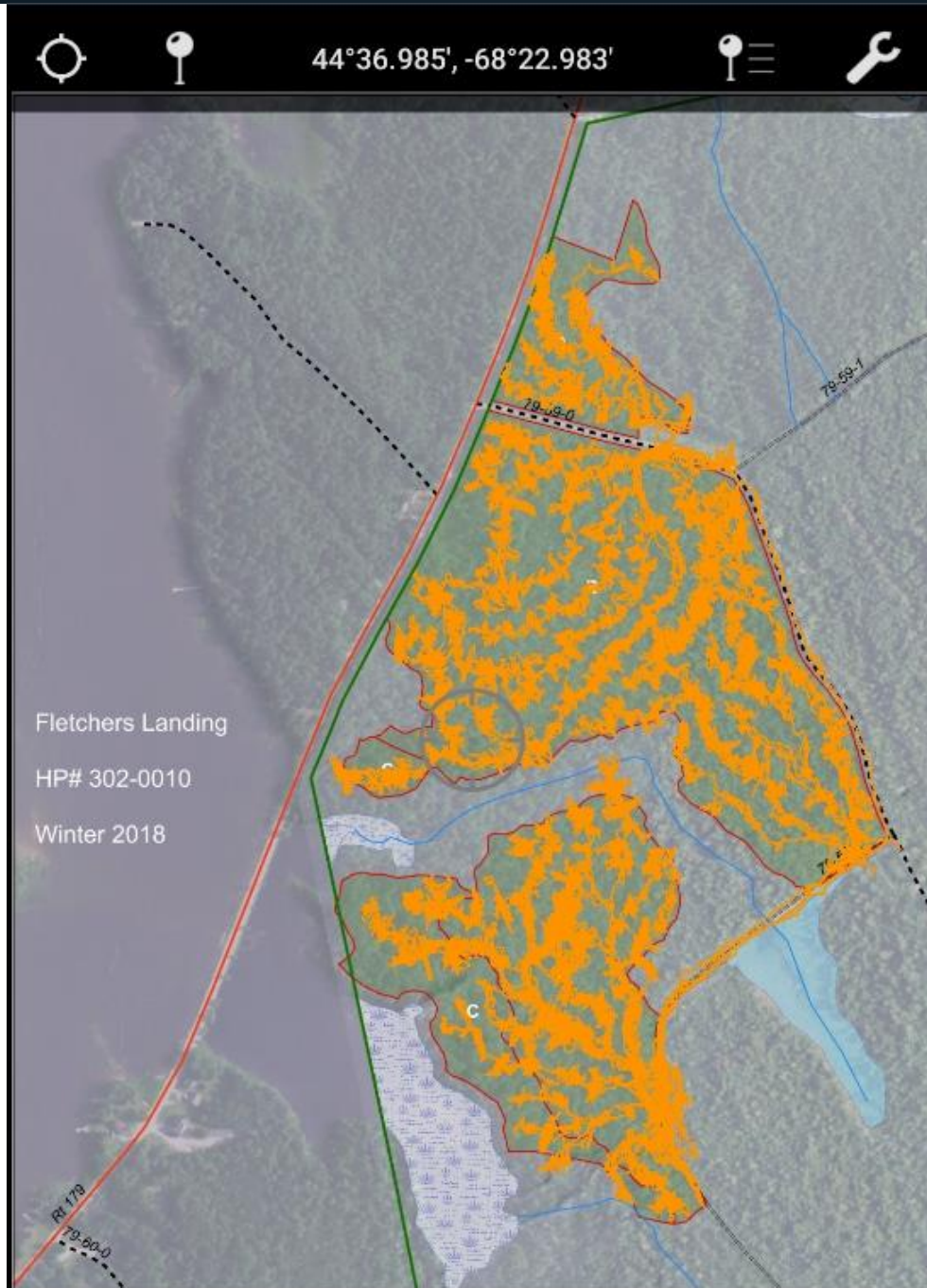
137.98  
acres  
Calculation Area  
(Total Area: 138.51 acres)

Metrics

	Mean	Total
AMV 7+	15 feet <sup>3</sup> /acre	2131 feet <sup>3</sup>
Basal Area 5+	136.6 feet <sup>2</sup> /acre	
Basal Area 7+	110.2 feet <sup>2</sup> /acre	
Base Live Crown	28.2 feet	
GMV 5+	3015 feet <sup>3</sup> /acre	415973 feet <sup>3</sup>
GMV 7+	2640 feet <sup>3</sup> /acre	364342 feet <sup>3</sup>
Gross Tot Vol 5+	3386 feet <sup>3</sup> /acre	467180 feet <sup>3</sup>



- Pre-harvest planning
- Yard location(s)
- Harvest Specifications
- Import/Export data to Cloud Storage



### GPS track logs:

- Weekly updates from operators
- Exchange track logs between harvester-skidder
- Track harvest progress in AFRIDS
- GIS harvest update



Organizational changes to employ Lidar derived products has created some challenges.

Adapting our technology to optimize use of the enhanced forest inventory was challenging, but rewarding with gains in efficiency and accuracy.

Communication between the Planner and Forester will continue to be the key factor for success.

## Questions?