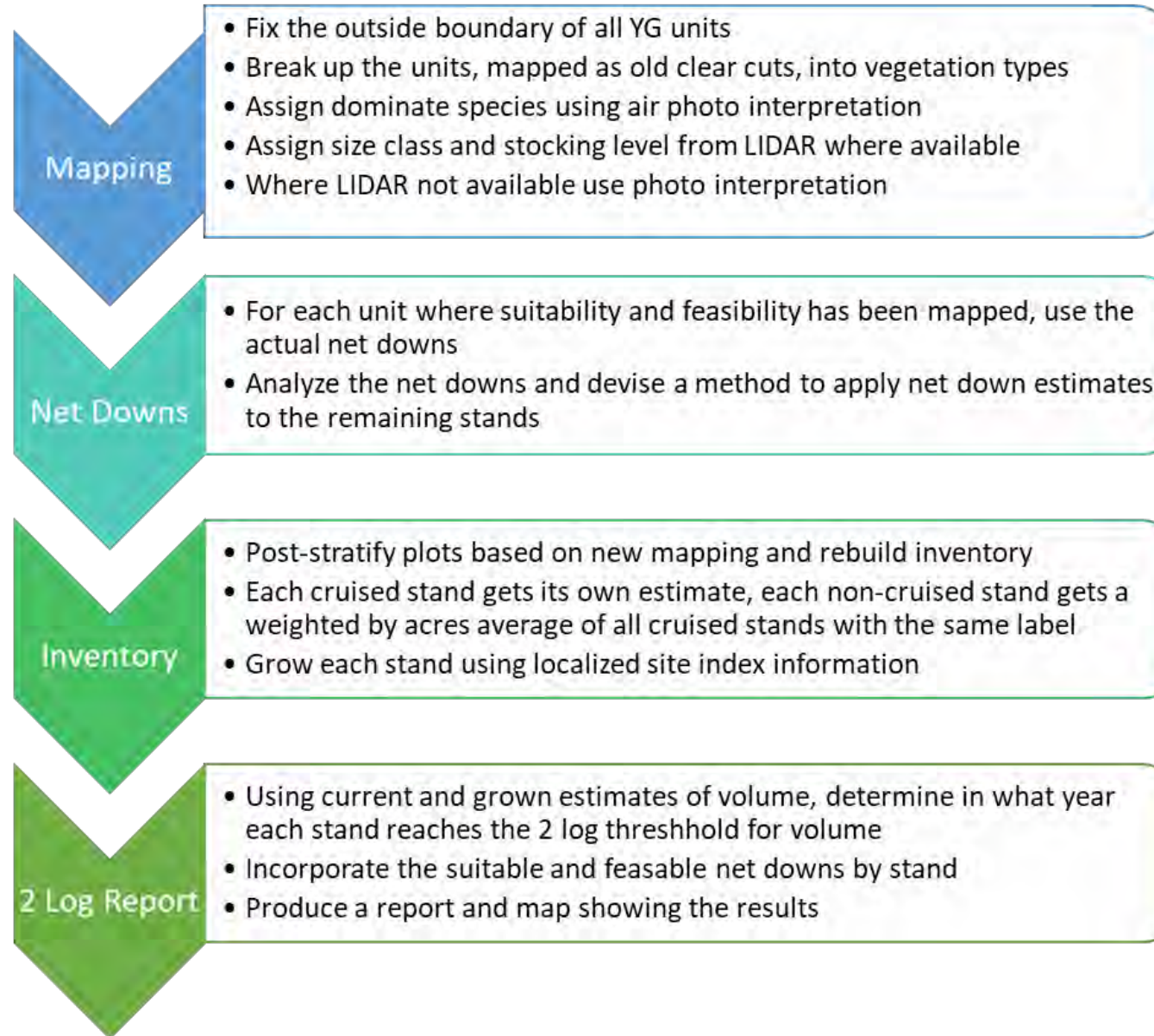
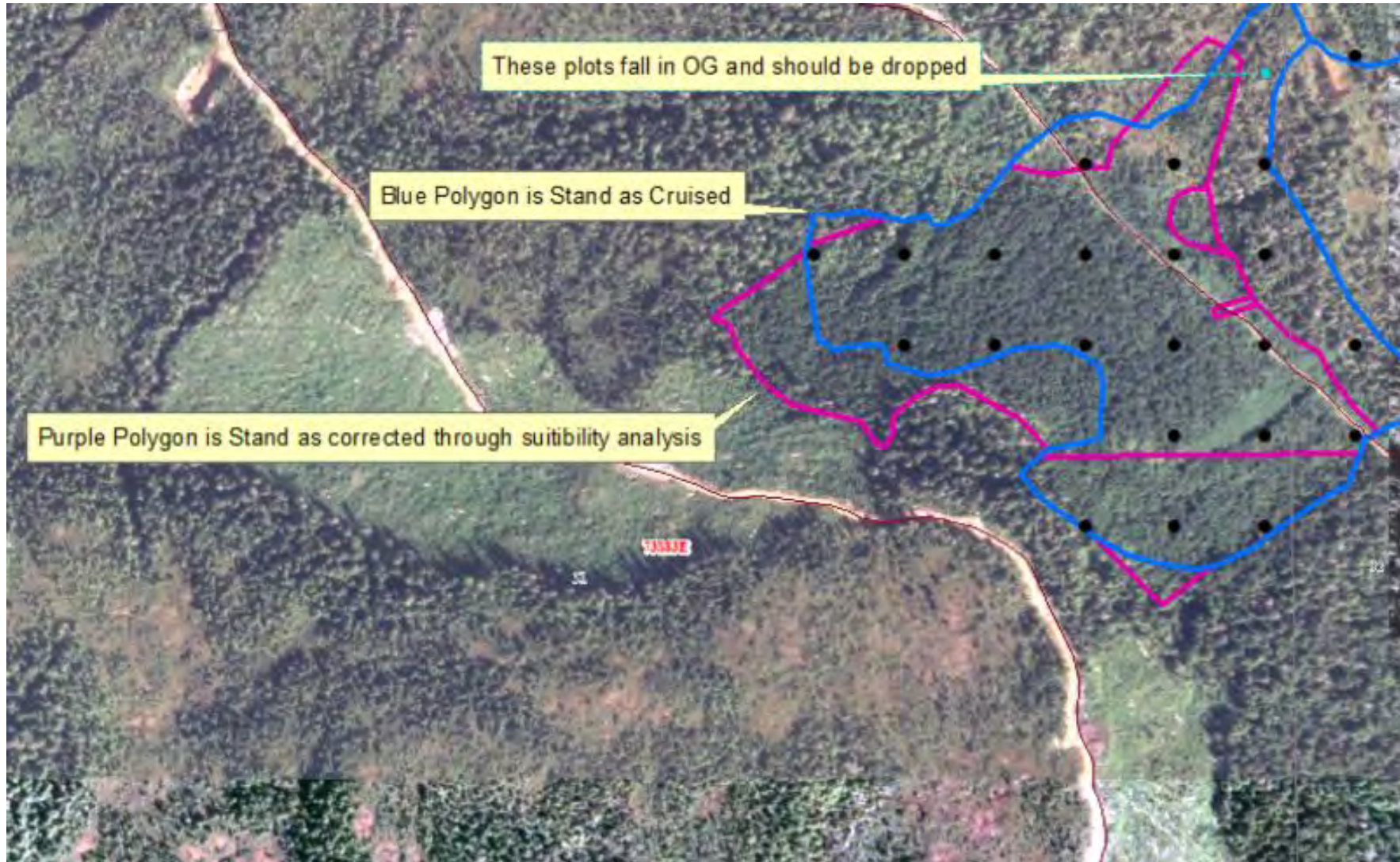


Original Proposed Work Flow to turn Young Growth Inventory Estimates into a Timber Volume Flow Report



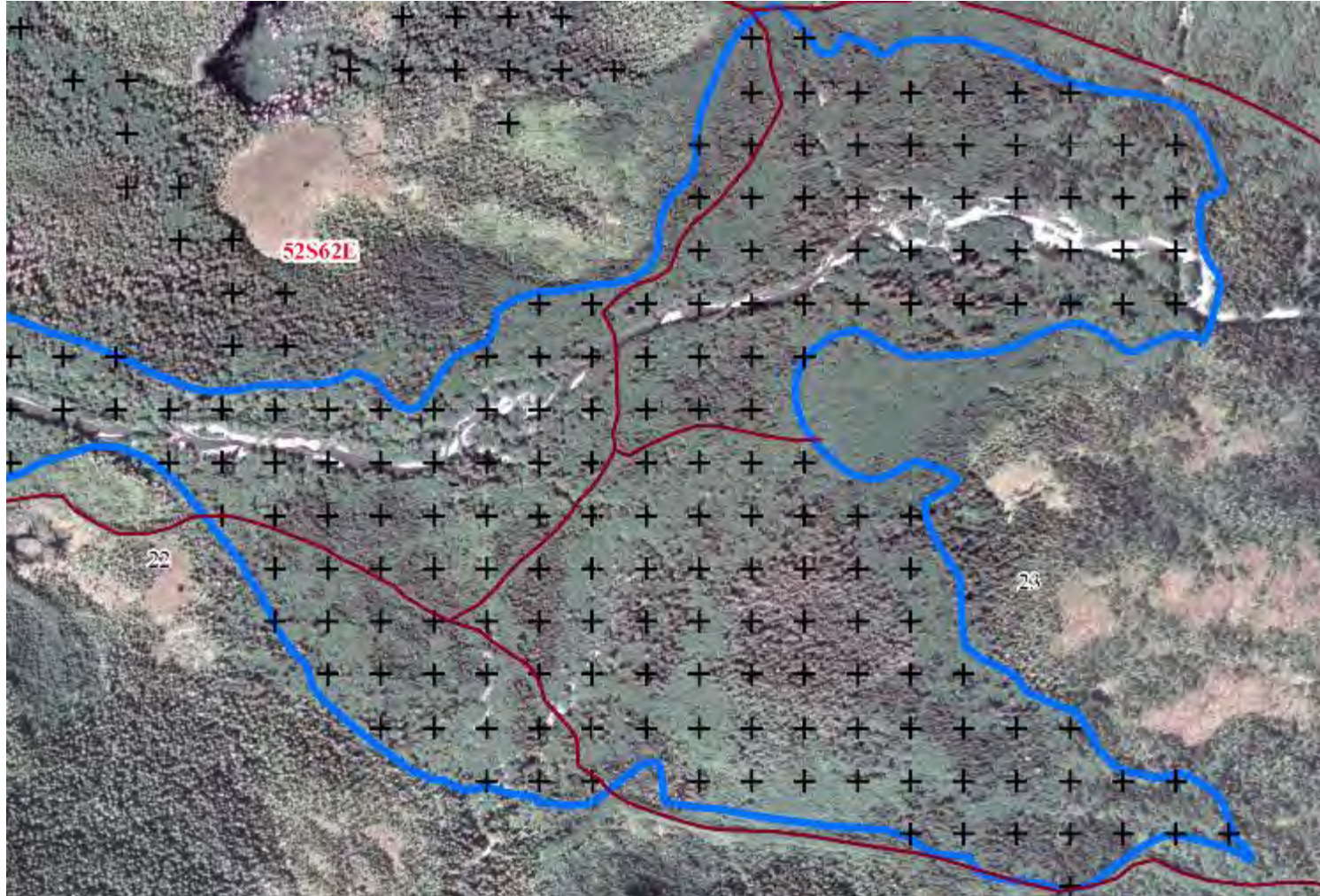
Mapping: Stand boundaries needed to be adjusted and plots needed to be post stratified.

- Acres needed to be adjusted for ALL stands before net down percentages are applied.
- Some plots were dropped in the field, others were not. Plots should be post stratified based on updated mapping.



Mapping: Breaking up polygons by re-typing

- Many stands were far too big and have too much structure going on in them
- The average was washing out the detail
- Stand below contains some places with residual overstory, some alder areas and some suitable Spruce/Hemlock young growth.

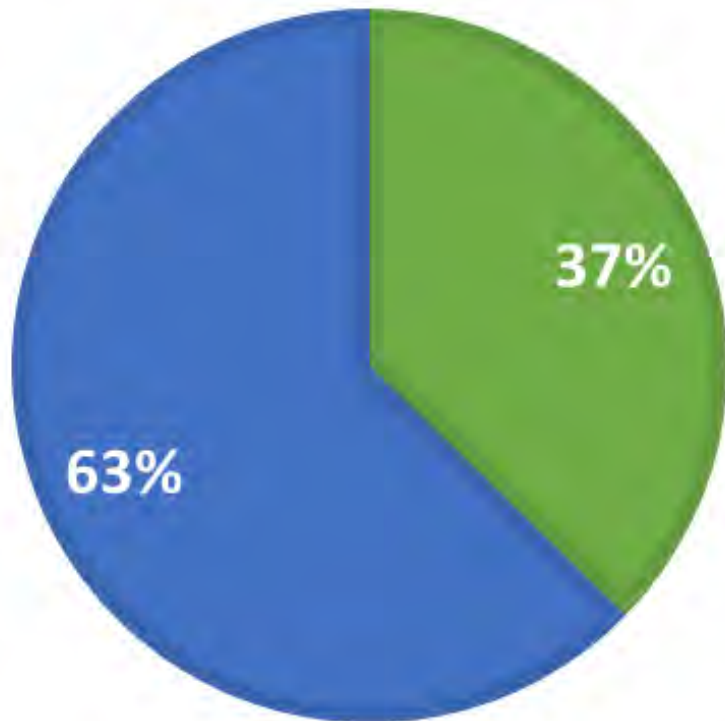


Mapping Example: Breaking out Timber Types and Correcting outside boundaries

Each stand is given a label to describe the structure. Plots, LIDAR and photos all used.

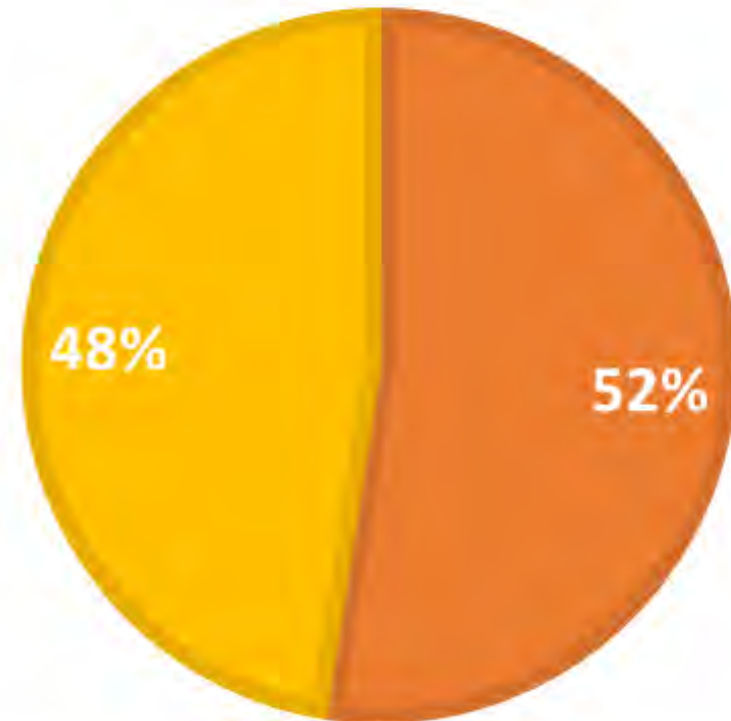
PLOTS ON 185,000 ACRES

■ With Plots ■ No Plots



LIDAR ON 185,000 ACRES

■ With LIDAR ■ No LIDAR



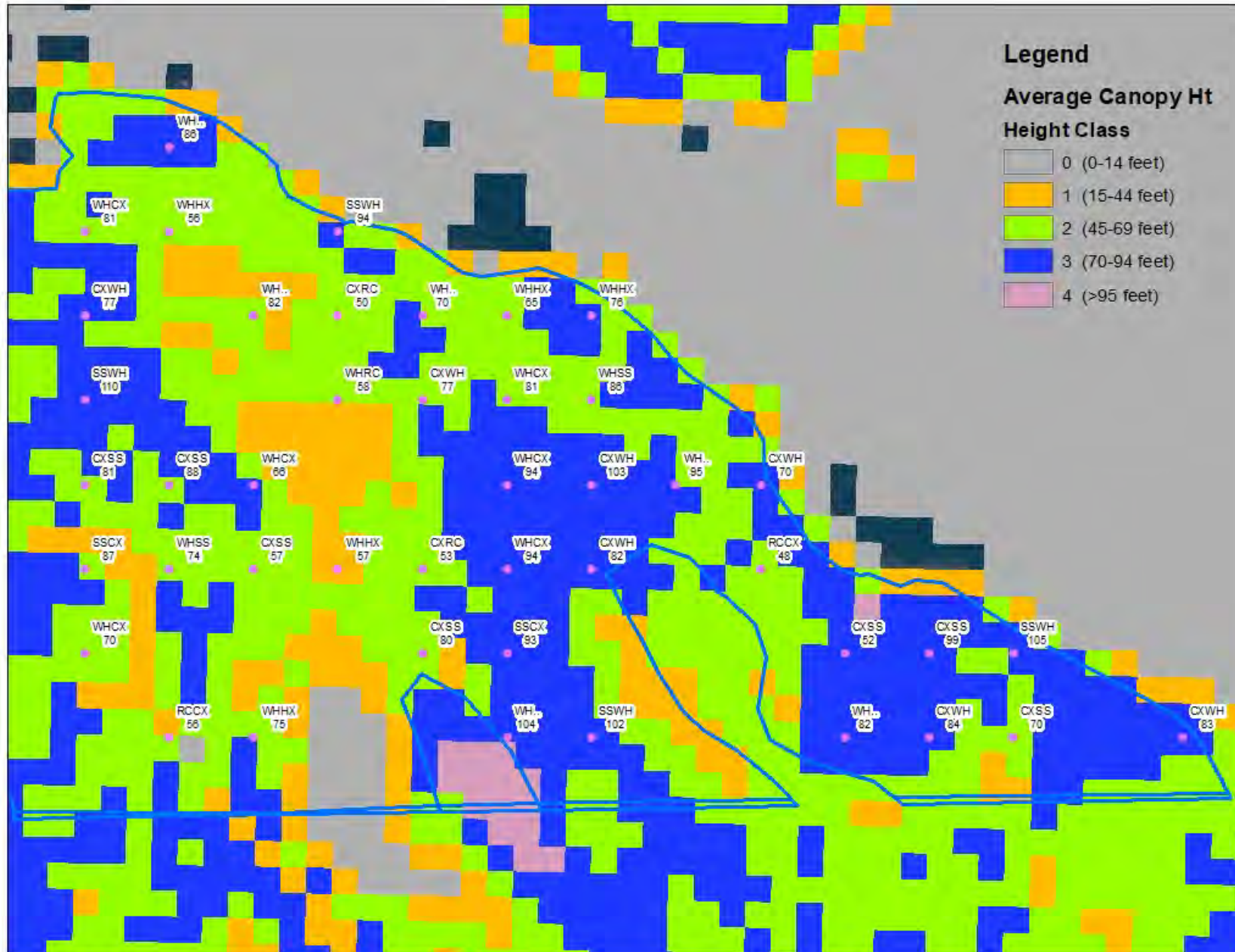
Mapping Example : Breaking out Timber Types and Correcting outside boundaries

Linework (new in red) was updated to correct boundaries and capture timber variation



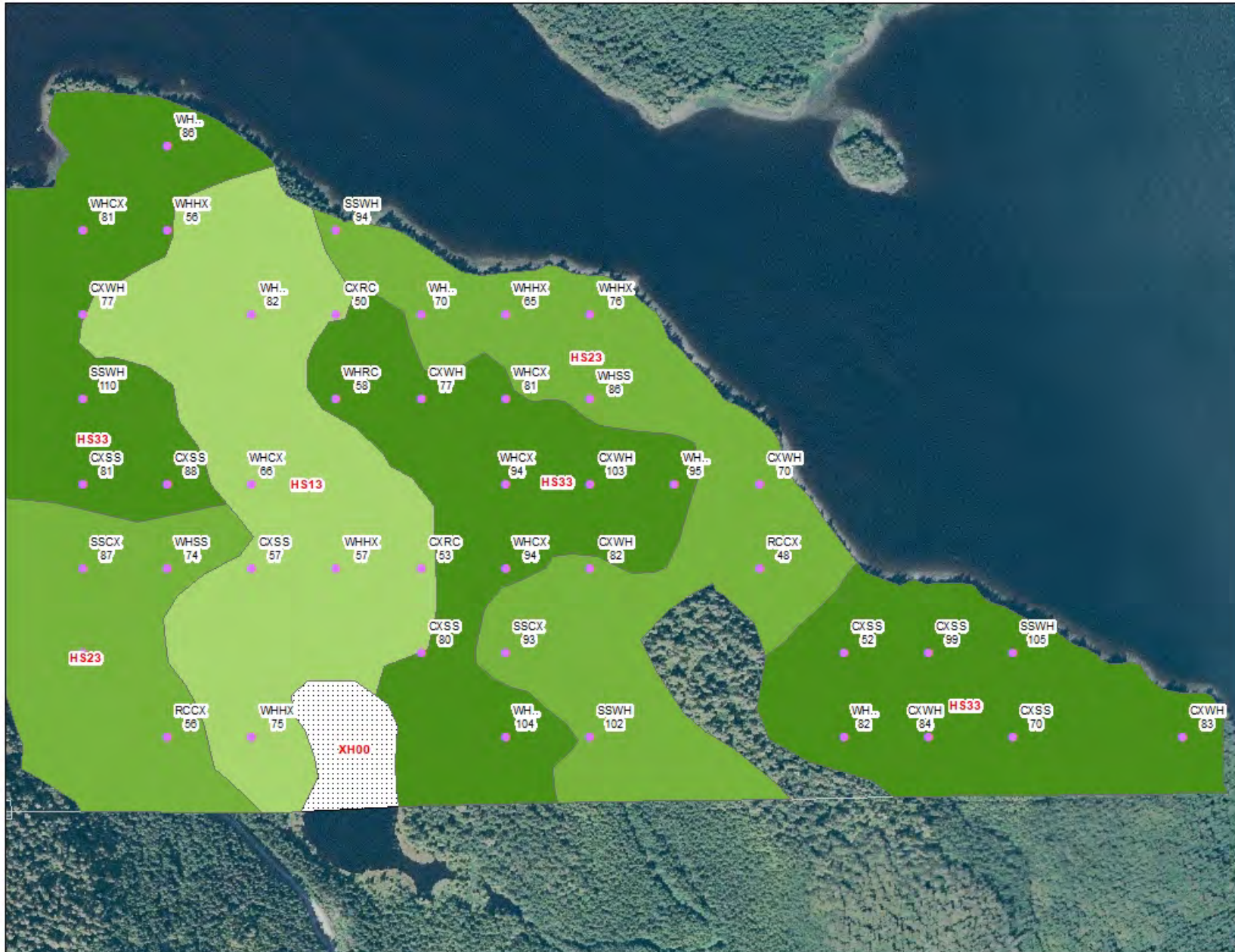
Mapping Example : Breaking out Timber Types and Correcting outside boundaries

LIDAR (where available) was an important tool



Mapping Example: Breaking out Timber Types and Correcting outside boundaries

Final product allows plots to be re-allocated into new stands



Mapping: Breaking out Timber Types and Correcting outside boundaries

Each stand is given a label to describe the structure. Plots, LIDAR and photos all used.

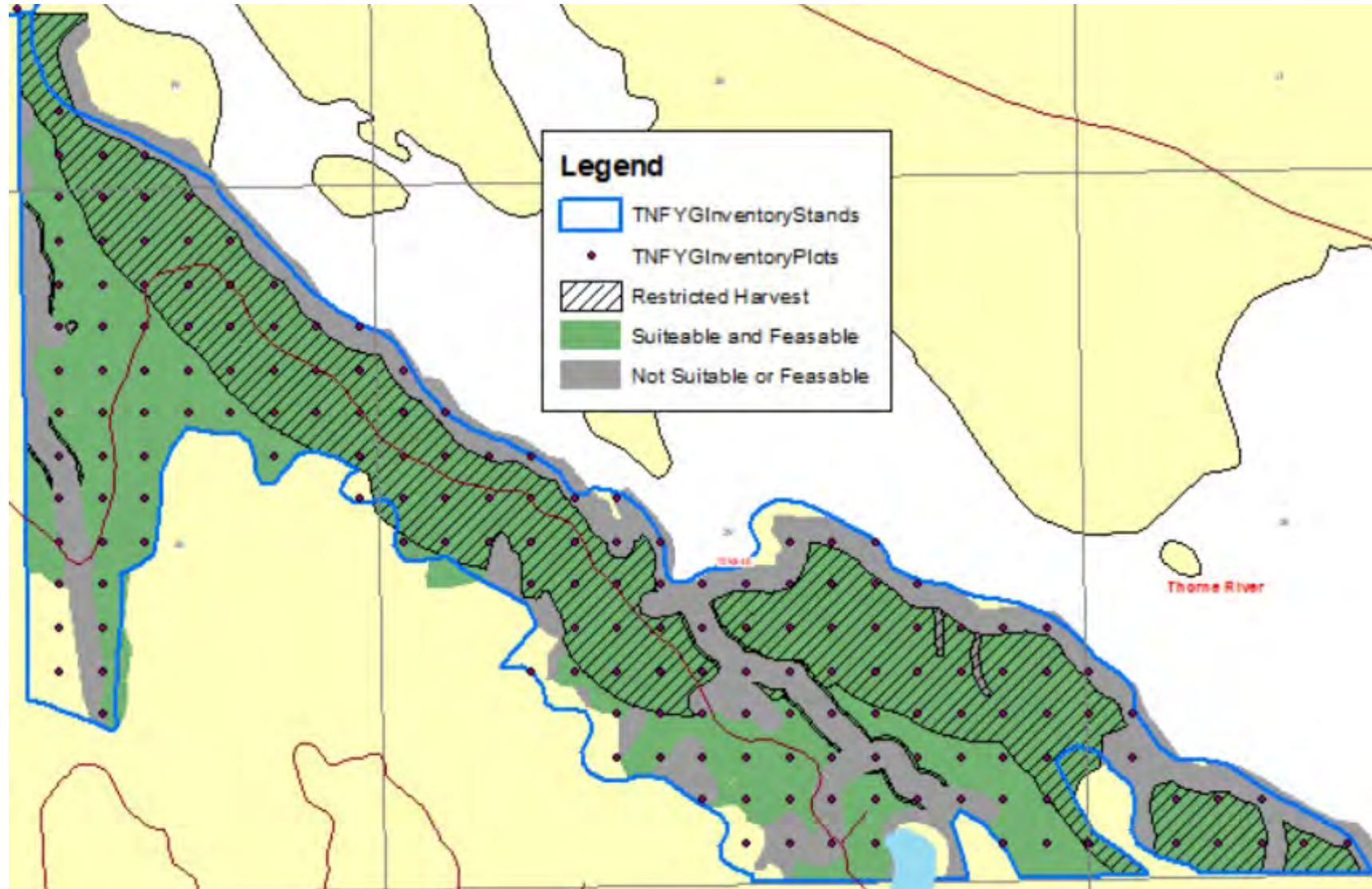
<u>New Tongass Young Growth Timber Labels</u>				
	Code	Explanation	Total Acres	Cruised Acres
Species	RA	>75% Alder	9,154	3,246
	SS	>60% Spruce	11,319	6,468
	WH	>75% Hemlock	2,128	761
	CD	>40% Red and Yellow Cedar	5,627	2,813
	HS	SS and WH in other proportions	96,177	35,399
	CX	Other combinations	60,065	20,408
Tree Size	4	>95 ft height of overstory	3,040	613
	3	70-94 ft height of overstory	69,347	28,169
	2	45-69 ft height of overstory	85,718	32,175
	1	15-44 ft height of overstory	26,365	8,138
	0	0-14 ft height of overstory	-	-
Stocking	3	70-100% Crown Closure	115,686	43,146
	2	40-69% Crown Closure	65,030	25,263
	1	10-39% Crown Closure	3,689	674
	0	<10% Crown Closure	65	13

Strengths and Weaknesses of Preliminary Analysis

Strength	Weakness
<ul style="list-style-type: none">• Mapping improved on subset of young growth• Estimates are generated for all stands (not just cruised stands)• Localized site index used for growth projections• High plot to plot variation was contained and mitigated through the timber typing approach.• Best of plot data and lidar data was leveraged to enhance estimates in cruised stands and make better predictions in un-cruised stands	<ul style="list-style-type: none">• Only a subset of acres was mapped up to this point in time. Many acres labeled with later harvest dates in truth may contribute to near term volume and should be included. Age 30 plus acres currently are being addressed and will be added.• Only the south end was completed to time constraints. There is volume in Northern Districts that can and should be added to this analysis.• Spatial constraints are approximations based on the best forest-wide data available. More refined net downs will be available as other work is completed.

Mapping: Net Down Analysis

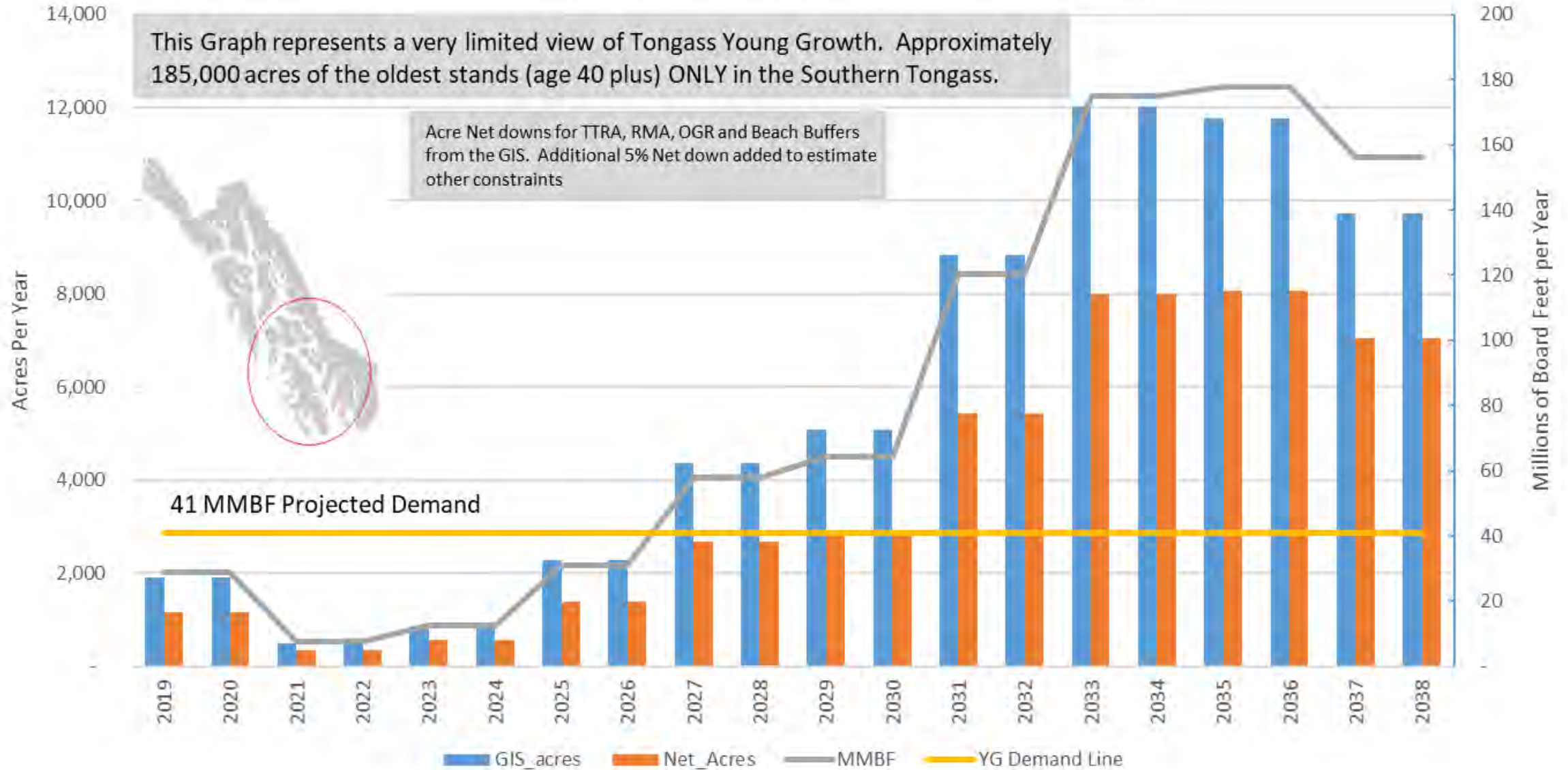
- Net down work is uncovering mapping blows
- Net down analysis is drastically reducing acreage
- Plots inside “no cut” areas may not be useful to include in the average



Southern Tongass Young Growth Wood Flow over time

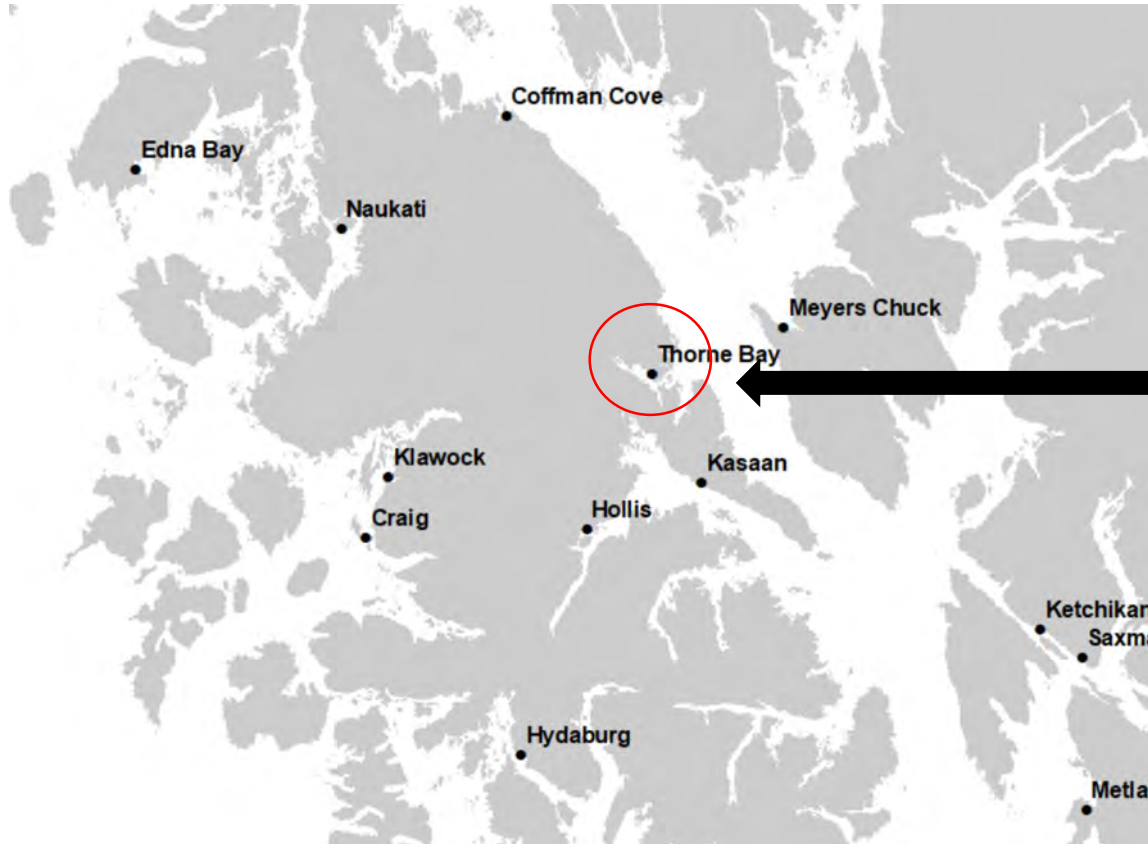
This Graph represents a very limited view of Tongass Young Growth. Approximately 185,000 acres of the oldest stands (age 40 plus) ONLY in the Southern Tongass.

Acre Net downs for TTRA, RMA, OGR and Beach Buffers from the GIS. Additional 5% Net down added to estimate other constraints



Tongass Young Growth “2 Log” Preliminary Analysis

- The following slides are a time lapse picture of the young growth lands near Thorne Bay. As stands reach Limits in the Two Log Rule, they change color from light green to dark green.
- Each slide represents two years worth of growth (two year increments)



Area of Interest

