SAMPLE DETERMINATION AND RATIONALE – A PROPOSED BLOCK DEPICTING THE 'DELETION' OF A PRIORITY OLD FOREST DEFERRAL AREA AND THE REQUIRED IDENTIFICATION OF A 'REPLACEMENT' PRIORITY OLD FOREST DEFERRAL AREA

Licensee XYZ

Cutting Permit ABC123-B12

Priority Old Forest Deferral Area Field Verification Summary & Rationale

DATE

INTRODUCTION

This summary/rationale documents the results of the Priority Old Forest Deferral Area field verification process undertaken for CP ABC123 Block 12, as well as the subsequent decision-making to defer harvesting in Forest Type 1 and propose harvesting in Forest Type 2 within CP ABC123-B12.

BACKGROUND

- Proposed CP ABC123 Block 12 is located within the MHmm1 BEC zone in Landscape Unit EFG.
- The proposed block is entirely within the big tree priority deferral area.
- Deferral criteria, as listed in Table A6.1 in *Field Verification of Priority Old Forest Deferral Areas: Technical Guidance v3.1* ("the field verification guidance") are shown in Table A5.1.

Table A5.1 Deferral criteria for the MHmm1

BEC subzone / variant	NDT	Ancient Age (>)	Old Age (>)	Older Mature Age (>)	Remnant Old Ecosystems	Old Min Height	Old Min QMD	Older Mature Min Height	Older Mature Min QMD
MHmm1	NDT1	400	250	200	-	36	44	-	-

PROCEDURES & RESULTS

Assess the extent and likelihood of proposed harvest blocks overlapping with Priority Deferral Criteria

- CP 123ABC-B12 is completely within a polygon mapped as a priority big-treed deferral.
- The proposed block is mapped as a priority old forest deferral area but may not meet the deferral criteria and become available for harvest

Determination:

While the block is identified in the priority old forest deferral mapping, reconnaissance level field work indicated that field verification was necessary to assess the eastern portion of the block to determine if it meets the Big-treed priority deferral criteria.

Stratify the Stand Based on Ecosystem and Stand Structural Conditions

- The proposed block was divided into two Forest Types.
- The VRI polygons closely mirrored the two Forest Types and were used for stratification.
- Forest Type 1 (NW portion of the block) contains larger trees with more complex old forest stand structure than Forest Type 2, even though both types are mapped as a priority deferral area.

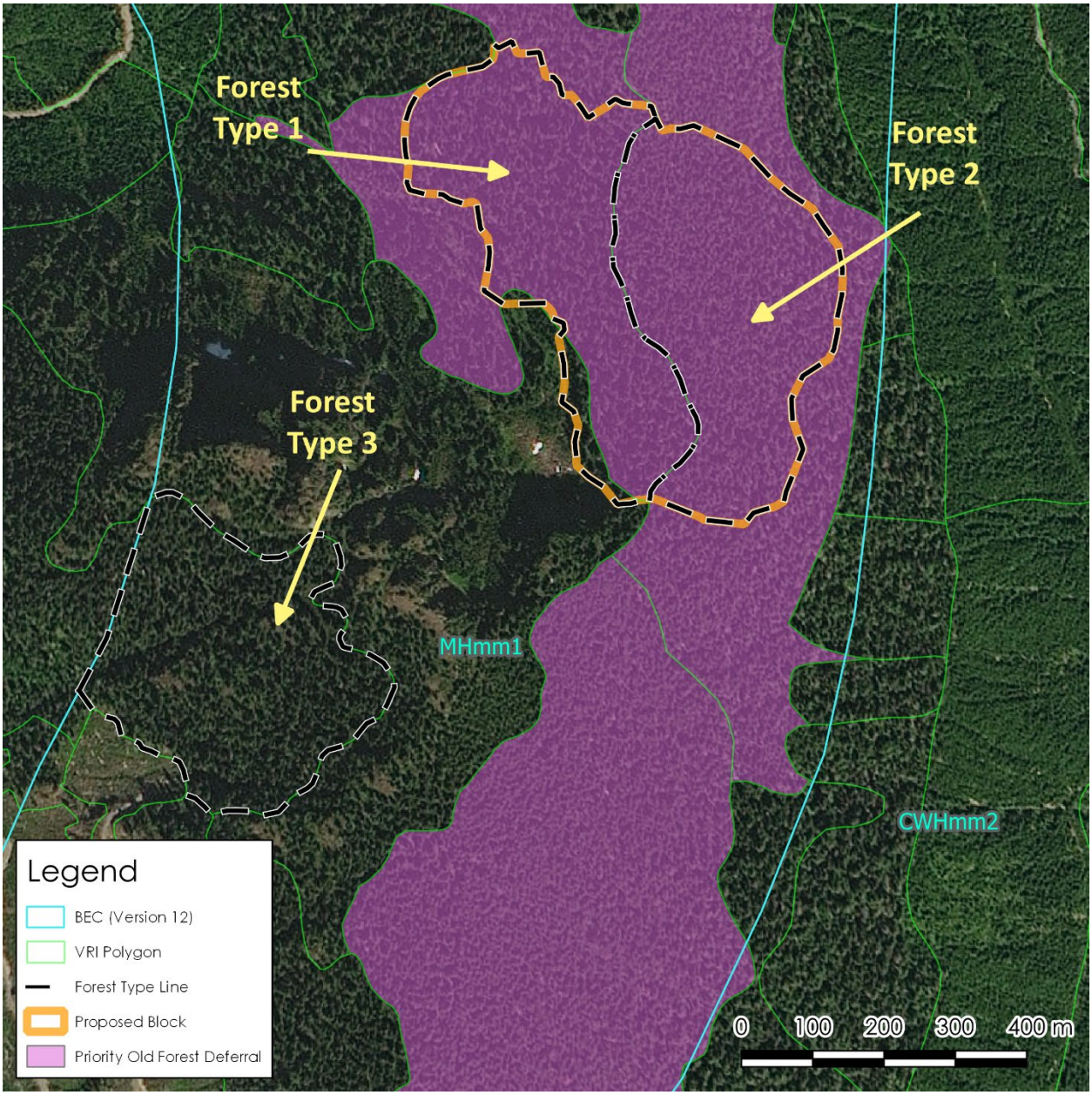

Figure A5.1. Map of CP ABC123-B12 ecological stratification.

Determination:

Old forest deferral criteria were assessed for the two separate Forest Types within the block, and deferral decisions are based on data from each of those Types.

COLLECT AND COMPILE FIELD DATA

- CP ABC123 Block 12 was developed and cruised prior to the province's priority deferral announcement.
- The full cruise plan can be found in Appendix X[1] of this submission. Figure A5.1b shows the distribution of cruise plots within each Forest Type in the block. Supplementary field plot locations are identified for Forest Type 3
- Cruise data were overlayed on the Forest Types and a cruise compilation was run for each Type (Figure A5.2).

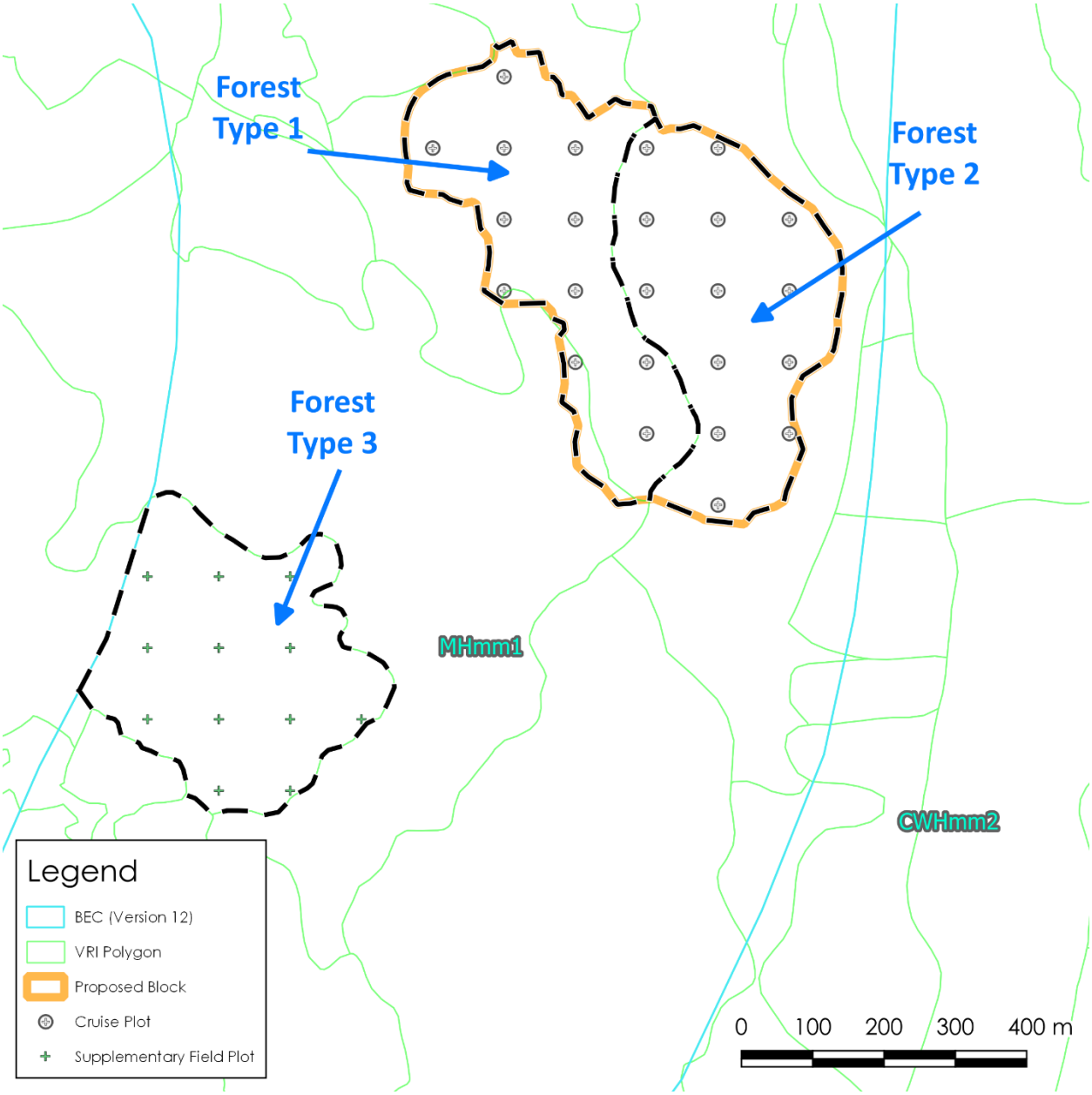

Figure A5.2. Cruise plot distribution, by Forest Type.

[1] Not included in this example rationale.

- Field crews collected additional tree core data as per procedures outlined in the field verification guidance document.
- Table A5.2 summarizes Age data for CP ABC123-B12. Ecological age for the Forest Types is shown in bold.

Table A5.2. Age Data for Block ABC123 B12.

Forest Type	Tree Species	Tree DBH	Measure Code	Tree Ring Count	Estimated Missing Rings	Breast Height Age	Yrs to Breast Height	Tree Age
1	Hm	97.4	ROT	243	87	330	15	345
	Hm	85.3	NOP	368	5	373	15	388
	Hm	88.2	NOP	317	4	321	15	336
	Hm	83.6	ROT	210	95	305	15	320
	Ba	77.2	ROT	187	110	297	15	312
	Mean Age							**340**
2	Hm	52.2	NOP	373	4	377	15	392
	Hm	37.3	ROT	199	89	288	15	302
	Ba	39.2	ROT	201	124	325	15	340
	Ba	45.4	ROT	245	50	295	15	310
	Ba	58.5	PTH	330	0	330	15	345
	Mean Age							**338**

Determination:

Methods and procedures outlined in the field verification guidance were followed. The Stand ages, QMD's, and heights are shown in Table A5.3 for each Forest Type.

Refer to Appendix Y[2] of this submission for cruise compilation, candidate tree selection for aging, and tree core field cards.

Determine if Priority Deferral Criteria are met

The Priority Deferral Decision Flowchart from the field verification guidance (Step 2) was followed to determine whether each of the Forest Types met priority deferral criteria for Ancient, Remnant Old Ecosystems, or Big-treed Old Growth. Table A5.1c summarizes the deferral criteria and data measured in

[2] Not included in this example rationale.

the field. Table A5.4 shows the relevant information, results, and processes from the Priority Deferral Decision Flowchart.

Table A5.3. Forest Type Age, QMD, and Height Summary

Forest Type	Stand Age	QMD (cm)	Height (m)
1	340	73.3	36.1
2	338	42.4	30.9
3	340	65	38
DEFERRAL CRITERIA	> 250 (old) > 400 (ancient)	≥ 44 cm	≥ 36 m

Table A5.4. Priority Deferral Decision Flowchart Results

1 STAND AGE*

Old Forest	Yes →	Go to 2: Review Remnant Old Ecosystem criteria	Types have ages > 250 and < 400

2 REMNANT OLD ECOSYSTEM*

	No →	Go to 4: Big-treed Old Growth Criteria for Old Forests	No– the MHmm1 is not identified as a Remnant Old Ecosystem

4 BIG-TREED CRITERIA FOR OLD FOREST

Mapped as Priority Deferral (Map 1)	Yes →	Go to 4(a): Comparing Big-treed Criteria for stands *mapped* as Priority Deferrals	Type 1 and 2 are mapped as a Priority Deferral Area

4(A) BIG-TREED CRITERIA FOR STANDS *MAPPED* AS OLD FOREST PRIORITY DEFERRALS*

Field-measured QMD and Stand Height are *both less than* values for Old Forests in Table A6.1	Yes →	Type 1 meets deferral criteria Type 2 does not meet deferral criteria	Harvesting is proposed in Type 2

4(b) Big-treed Criteria for stands *NOT MAPPED* as Old Forest Priority Deferrals*

Field-measured QMD and Stand Height are *both greater than or equal to* values for Old Forests provided in Table A6.1	Yes →	Type 3 Meets deferral criteria	Type 3 is recommended as replacement area

Documenting Field Evaluations and Submitting Spatial Data

Spatial data are submitted as per the Old Growth Field Observation Form. The required pdf map is shown on the Old Growth Deferral Field Verification Map (Figure A5.3).

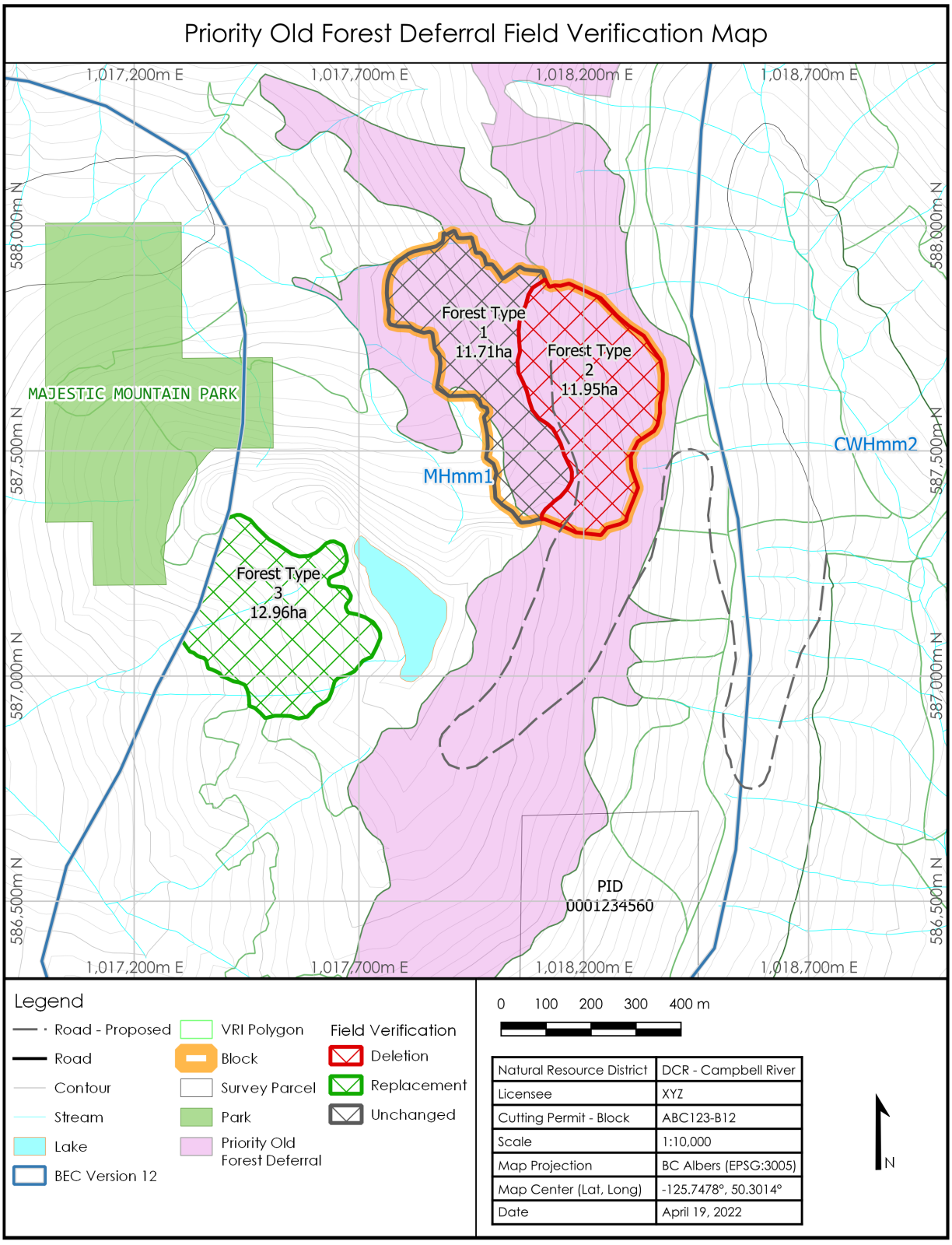

Figure A5.3. PDF map showing post-field verification deferral areas.

CONCLUSION

I have determined that the process undertaken by Licensee XYZ for CP ABC123-B12 is consistent with the field verification procedures detailed in the *Field Verification of Priority Old Forest Deferral Areas: Technical Guidance, Version 3.1.*

Forest Type 1 was mapped as a Priority Old Forest Deferral Area and meets the priority deferral criteria and is identified as a deferral area in the Cutting Permit submission. Forest Type 2 was mapped as a Priority Old Forest Deferral Area, but, although the stand exceeds the minimum age for old forest, neither the QMD or height exceed the minimum values for the MHmm1, and harvesting is proposed. Forest Type 2 is identified as a DELETION in the data submission. Forest Type 3 was not mapped as a Priority Old Forest Deferral Area, and the minimum age for old forest, QMD and height exceed the minimum values for the MHmm1. Forest Type 3 is proposed as a Replacement Priority Old Forest Deferral Area for the deletion of Forest Type 2.

This assessment does not supersede any requirements in land use orders, higher level plan orders, government action regulations (GAR), or any other legislation, guidance, or best practices. Supporting mapping and spatial data are attached to this document.

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<tr><th>RPF Printed Name</th><th>RPF's Signature & Seal</th></tr>
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<tr><td>I certify that the work described herein fulfills the standards expected of a registrant of the Association of British Columbia Forest Professionals and that I did personally supervise the work.</td></tr>
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