

VISUAL IMPACT ASSESSMENT

Port Douglas Blocks HN120, HN124, HN125 & HN999 (log dump)



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PREPARED FOR:

BC Timber Sales
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Visual Impact Assessment

Timber Sale A94293, consists of proposed cutblocks HN120, HN124 and HN125 which are located at the mouth of Harrison Lake near the confluence of the Lillooet River and Port Douglas, BC within the Chilliwack Forest District. In addition, the Port Douglas log dump (HN999) will be constructed and cleared under a separate contract approximately 1.3 km east of HN124. BCTS operates under an approved Forest Stewardship Plan (FSP) (Amendment #44) within the Chilliwack Forest District in accordance with the Forest Range and Practices Act (FRPA) and its regulations. The FSP presents a Result or Strategy for Visual Quality where timber harvesting and road construction must be consistent with Section 1.1 of the Forest Planning and Practices Regulation (FPPR) and associated Government Actions Regulations (GAR) Orders. Refer to Appendix A: Legislative Background for further detail.

This series of developments is located approximately 60km up Harrison Lake from the town of Harrison Hot Springs. Access can also be gained by following the Sts'ailes FSR for approximately 75km or via the lake road accessible just outside of Pemberton, BC. These blocks are located on moderately steep (at lower to mid elevations) west facing slopes and on intermittent benchy terrain, along the lower to mid extent of the landform. This area consists of a mosaic of softwood dominated forest types, open rocky terrain and existing alteration from increased industrial use including the transmission line right-of-way associated with the Stokke Creek run-of-the-river hydroelectric facility.

Block HN120 is comprised of one harvest unit with four engineered internal retention patches with a net harvest area of 41.1ha (including external ROW) arranged along middle slopes above Harrison Lake and ranging in elevation from 460m to 580m. HN120 is located within visual landscape inventory (VLI) polygon #99 with an established visual quality objective (VQO) of Modification (M). A portion of the block is also within unassigned (UA) VLI polygon #102 which has no visual quality objectives. Any visible portions of the block that fall within this polygon will be managed with a Modification forest altered landscape objective.

Block HN124 is comprised of one harvest unit with one engineered internal retention patch with a net harvest area of 32.6ha arranged along lower slopes above Harrison Lake and ranging in elevation from 50 to 210 meters. HN124 is located within visual landscape inventory (VLI) polygon #99 with an established visual quality objective (VQO) of Modification (M).

Block HN125 is comprised of two harvest units with five engineered internal retention patches with a net harvest area of 19.9ha (including external ROW) arranged along lower to middle slopes above Harrison Lake ranging in elevation from 260 to 470 meters. HN125 is located within visual landscape inventory (VLI) polygon #99 with an established visual quality

objective (VQO) of Modification (M).

These proposed blocks are dispersed across visible and non-visible portions of the forest landscape; located fully (HN124, HN125 and HN999) or partially (HN120) within VLI polygon #99 with an established VQO of modification. The extent of the landform which surrounds proposed blocks HN120, HN124, HN125 and the log dump (HN999) was determined at each individual viewpoint to accurately assess both qualitative and quantitative impacts to the visual quality objectives.

HN999 has a net harvest area of 1.2ha and is located along the lower slopes of Harrison Lake at elevations ranging from 10 to 70 meters. HN999 is located in VSU polygon #99 with an EVQO of M.

A summary of the blocks under A94293 and their associated VLI polygon numbers and established visual quality objectives are found in Table 1 below.

Table 1: Blocks under TSL A94293 and their associated VLI polygon numbers and established VQOs.

Block	VLI#	EVQO
HN120	99/102	M/UA
HN124	99	M
HN125	99	M

Visuals were assessed from four (4) VLI established viewing points in and around Port Douglas as well as four additional project-determined viewing points that present a “worst-case scenario” approach to assess potential visual quality impacts of blocks HN120, HN124 and HN125 and the log dump (HN999).

When assessed from all viewpoints individually and collectively and when considering viewpoint importance, viewing distance, the qualitative definition of M, viewing duration and percent alteration calculations the potential visual quality impacts associated with all blocks is consistent with the qualitative and quantitative definitions of a Modification altered landscape.

The FPPR defines Modification as “consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint, is

- very easy to see,
- large in scale and natural in its appearance, or
- small to medium in scale but with some angular characteristics

Quantitative objectives for a Modification VQO suggest that percent alteration should not exceed 18.0% when including the block being assessed as well as any known future developments within the next five years as well as current non-VEG areas.

The Existing Visual Condition (EVC) within VLI #99 was classified as Modification (M) by the 2013 VLI for the Chilliwack Forest District. Google Earth, forest cover inventory data and multiple site visits helped to confirm that other than the existing alteration from industrial hydro right of way clearing, the true EVC is closer to Retention.

Table 2: Summary of Visual Landscape Inventory Units.

Summary of Visual Sensitive Units			
VLI	EVC	VSC	VQO
99	R	3	M

Visual Design

Blocks HN120, HN124 and HN125 have been engineered to manage numerous forest values including visual quality and wildlife habitat management (HN124 & HN125). HN999 is considered a long-term use permanent access structure and log handling facility. These blocks were designed to account for visuals from eight (8) points of congregation utilized by recreationalists and full time residents of Port Douglas. The harvest areas vary in size and shape, have irregular, linear and non-linear boundaries, and engineered internal aggregate retention. In addition, the blocks are distributed between the visible and non-visible portions of the viewshed as the result of managing for multiple forest values.

The engineered retention patches in blocks HN120, HN124 and HN125 surround open, rocky in-operable areas. These patches have exposed bedrock, some large old-growth douglas-fir and some smaller stunted trees. One patch in HN120 surrounds a natural opening around a draw with scattered, vigorous douglas-fir along the retention boundary edge. Some patches also have a healthy component of alder. Some retention areas were established to protect culturally-modified trees (CMTs) identified during the archaeological assessment of the development area.

Table 3: Visual Impact Assessment Summary Form.

Visual Impact Assessment - Summary Form	
Client Name: BC Timber Sales	License Number: A94293
Cutblock(s): HN120, HN124 & HN125 / HN999	Cutting Permit/Road Permit: TBD
Proposed Silviculture System: Clearcut with Retention	Proposed Year of Harvest: 2017
Type of Proposed Operation: Ground / Cable	Net Development Size (NAR): 94.8ha
Visual Landscape Inventory (VQO map) Date: 2013	Does the EVC exceed the established VQO: No
Visual Impact Assessment Declaration	
Does the proposed development, in combination with any existing non-VEG alterations, and/or any known future development achieve the basic definition for the established VQO(s)?	
Yes	
Have good visual design concepts and principles been incorporated into the design of the proposed development?	
Yes	
Does the proposed development, in combination with any existing non-VEG alterations, and/or any known future development fall within the percent alteration numerical ranges for the established VQO(s)?	
Yes	
Given the three criteria listed above, does the proposed development meet the established VQO(s) from all the selected viewpoints?	
Yes	
<p>Visual Impact Assessment/Visual Renders Completed By: Jacquin McNicol, TFT Daniel Kim, GIS Technician</p> <p>Report Written By: Ashley Adamczyk, RPF Jacquin McNicol, TFT</p> <p>'I certify that the work described herein fulfils the standards expected of a member of the Association of British Columbia Forest Professionals, and that I did personally supervise the work.'</p> <p>Date Completed: March 16, 2017</p>	
Visual Impact Assessment - Additional Considerations	
Has this visual impact assessment report incorporated all known alterations (known future development) in the scenic area for the next five years (i.e. all operations proposed by the same or different licensees)?	
Yes	

Viewpoint Selection

A total of eight (8) viewpoints were selected from which to assess potential visual quality impacts of blocks HN120, HN124, HN125 and HN999. These viewpoints are believed to best represent significant areas of present and future public congregation sites where people are offered static and sustained viewing opportunities towards the proposed developments as a “worst-case” scenario approach to the VIA. Refer to **Appendix C** and **Appendix D** for Google Earth images of each viewpoint and photos from VP 1 and VP 2.

Viewpoint Importance & Description

The proposed developments, southeast of Port Douglas are both visible and visually non-evident from the eight (8) selected viewpoint locations in around the mouth of Harrison Lake. This area is considered low in terms of recreational potential due to limited access opportunities in the form of long driving routes maintained primarily for 4x4 recreation vehicles and boat access. Throughout the past two decades the area has seen steady and increased use by both the forest industry and the private power sector which can be seen by permanent hydro right of ways on the east side of the lake and a large log dump/dryland sort at Tipella. The town of Port Douglas located around Little Harrison Lake has a small number of full time residents that regularly travel both the east and west side of Harrison Lake to access the Pemberton and the Fraser Valley. Where recreation opportunities do exist they are more prevalent at Five Mile Bay and established recreation sites more than 7km south of the proposed development areas.

Viewpoint 1 (Port Douglas)

Viewpoint 1 is located at the boat launch on Little Harrison Lake. It was selected based on established viewing point (viewpoint #16180) under the current VLI located approximately 170m to the southeast. At the time of this assessment the status of the boat launch was unknown but the use of the lake from nearby residents and occasional recreationalists give increased importance to this viewpoint as it has opportunities as a point of congregation with static viewing opportunities. Viewpoint 1 is located approximately 3.3km northwest of the proposed developments at the closest point. From this location, the proposed developments are expected to be visually non-evident.

Viewpoint 2 (Little Harrison Lake)

This project-determined viewpoint was selected to represent potential recreation opportunities on Little Douglas Lake in closer proximity to the proposed developments. The

viewpoint is located approximately 2.3km from the proposed developments at the closest point near the junction with the Port Douglas Channel that feeds directly into Harrison Lake. The area surrounding this viewpoint is considered a low to moderate point of congregation as it depicts the static and sustained view that recreationalists and full time residents will have towards the proposed developments.

Viewpoint 3 (Sts'ailes FSR)

Viewpoint 3 is a project-determined viewpoint located along the Sts'ailes Forest Service Road (FSR) on the west side of Harrison Lake which consists of a 75km route that commences at Grace Lake in the Weaver Creek area and continues north towards Tipella. This route sees seasonal closures due to slides and unsafe conditions and offers excellent viewing opportunities of Harrison Lake and its surrounding peaks and valleys. Viewpoint 3 is located at on the west side of Harrison Lake directly across from the proposed developments. This viewpoint was selected to represent the view that the public may have while travelling towards locally known recreation sites and either stopping to see the sights creating static viewing opportunities or passing by creating more a dynamic viewing opportunity towards the blocks. Located approximately 2.3km from the proposed developments are the closest point, this viewpoint is considered to have low importance as a point of congregation given it's distance away from populated communities and easily accessible travel routes.

Viewpoint 4 (North Harrison Shore)

Viewpoint 4 located at the mouth of Harrison Lake was selected based on established viewing point (viewpoint #10393) under the current VLI located approximately 760m to the southeast. This location was selected in place of the VLI viewpoint as it offers a static location along the shores of Harrison Lake compared to the dynamic view that a boat would have while traveling along the lake. Viewpoint 4 is located approximately 1.6km west of the proposed developments at the closest point. This viewpoint is considered to have moderate importance as a point of congregation given the additional options for travel routes.

Viewpoint 5 (Tipella)

Viewpoint 5 is located on the west shore of Harrison Lake at the site of Tipella which once had plans for development as a city in the early 20th century. However, it never saw expansion other than a camp site for logging and power industries as well as the nearby dryland sort managed by Douglas First Nation. This viewpoint was selected based on established viewing point (viewpoint #10395) located approximately 140m to the southeast. There are no

established recreation sites at this location but it can be considered as a low point of public congregation for industry users who travel in and out and the occasional recreationalist looking to explore the area. From this viewpoint the proposed developments are located approximately 2.6km to the northeast at the closest point.

Viewpoint 6 (Lillooet River)

Viewpoint 6 is located on the Lillooet River approximately 1.9km from where it flows into Harrison Lake. The river sees year-round use by a small number of fisherman at locations closer to the mouth of Harrison Lake. This viewpoint was selected based on the recreational and First Nations use of the Lillooet River in this area. There are no established recreation sites at this location but it can be considered as a low point of congregation. From this viewpoint, the proposed developments are located approximately 3.3km away at the closest point.

Viewpoint 7 (Recreation Harrison North)

Viewpoint 7 was selected based on established viewing point (viewpoint #10785). Located $\frac{3}{4}$ of the way up the lake from Harrison Hot Springs, this area sees less use by recreationalists given the extended travel times. However, this location depicts the sustained viewing opportunities that the public will have as they travel towards the proposed developments. Given the location of the developments on west facing slopes above Harrison Lake, recreationalists will receive extended side viewing opportunities of the developments that will be softened by points of interest along the way. This viewpoint is considered a low to moderate point of congregation as it depicts the dynamic and possible and sustained views that recreationalists will experience as they recreate on and around the lake. From this viewpoint, the proposed developments are located approximately 2.6km away at the closest point.

Viewpoint 8 (Five Mile Bay)

Viewpoint 8 is a project-determined viewpoint located at a non-established recreation site known as Five Mile Bay. Little is known about this location but it was chosen based on static viewing opportunities that the public may have towards the proposed developments as they take to the waters of the Harrison Lake by boat while camping nearby. Given the location of the developments on west facing slopes above Harrison Lake, recreationalists will receive extended side viewing opportunities of the developments that will be softened by points of interest along the way. This viewpoint is considered a low to moderate point of congregation as it depicts the dynamic and possible and sustained views that recreationalists will experience as they recreate

on and around the lake. From this viewpoint, the proposed developments are located approximately 6.10km from at the closest point.

Visual Impact Assessment Results

The potential visual quality impacts associated with the proposed development, when assessed from each viewpoint individually and from all viewpoints collectively are assessed using three variables:

1. **Basic VQO definition:** Does the proposed development meet the basic visual quality objective (VQO) definition as outlined in Section 1.1 of the FPPR?
2. **Visual design:** Does the proposed development exhibit elements of good visual design as described in the Visual Landscape Design Training Manual (VLDTM)?
3. **Numerical assessment:** In perspective view, what proportion of the landform will potentially be visually altered by the proposed development in combination with any existing non-VEG alterations and/or any other known future development?

The results of the visual quality impact assessments from each viewpoint are summarized in the series of Percent Alteration Calculation Tables and renders below. These results indicate consistency with the requirements and objectives outlined in the FSP and the FPPR. The expected visual quality impacts associated with the harvest of the proposed developments within the associated VSU, when assessed from each individual viewpoint and from all viewpoints collectively should not exceed the definitions of a PR altered forest landscape as outlined above (Section 1.1 of the FPPR). Refer to *Appendix B* for VIA Methodology.

This development was planned and engineered to address multiple resource objectives including visual quality objectives. This development is consistent with several of the good visual design techniques described in the VLDTM including harvest area patches designed with varying sizes, relatively small in size and scale, irregular, and linear and/or non-linear shapes, and distributed between the visible and non-visible areas when assessed from the selected viewpoints.

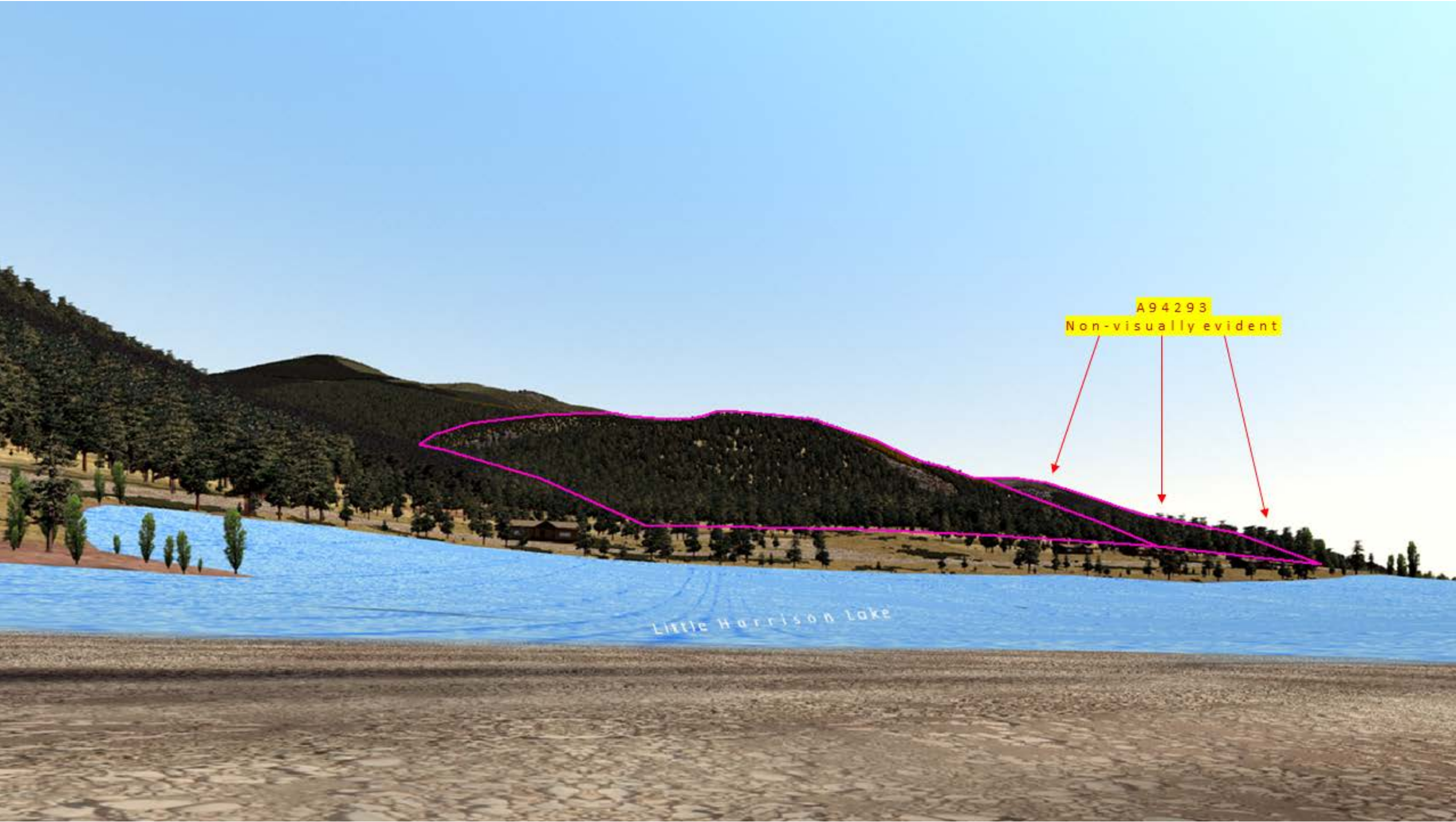


Figure 1: Projected alteration from Viewpoint 1 – Port Douglas

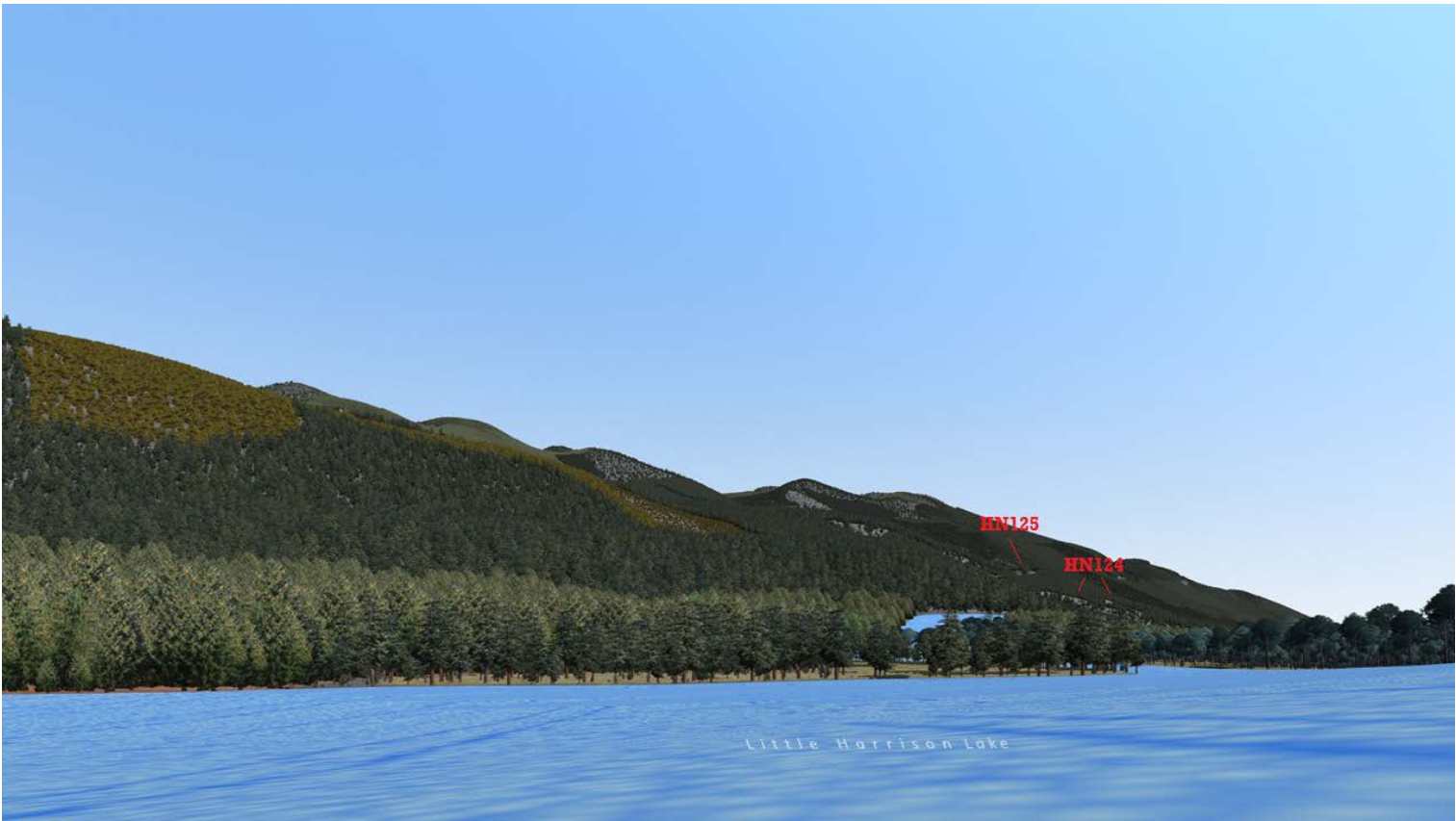


Figure 2: HN124 and HN125 from Viewpoint 2 – Little Harrison Lake

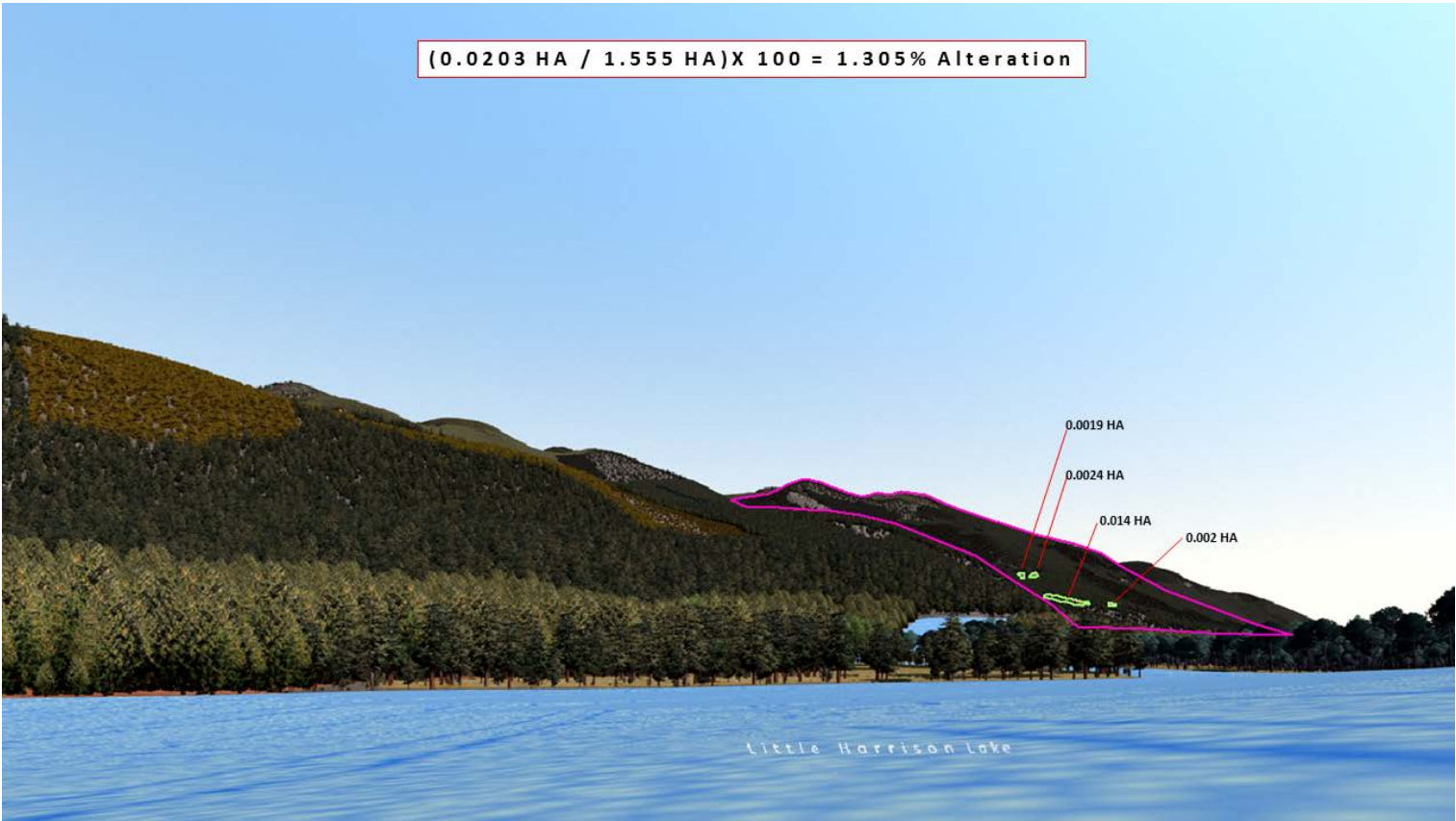


Figure 3: Projected Alteration of HN124 and HN125 (HN120 & HN999 are visually non-evident) from Viewpoint 2

Table 4: Viewpoint 2 – Little Harrison Lake

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 2.0 – Little Harrison Lake			
Viewpoint Coordinates: 49° 45' 37" N 122° 9' 14" W			
Proposed Development			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN124	0.016	1.555	1.029%
HN125	0.0043	1.555	0.276%
Subtotal of Proposed Development	0.0203	--	1.305%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 2.0		--	1.305%
Visual Quality Objective Achieved from Viewpoint 2.0		--	Retention
* relative units of area			

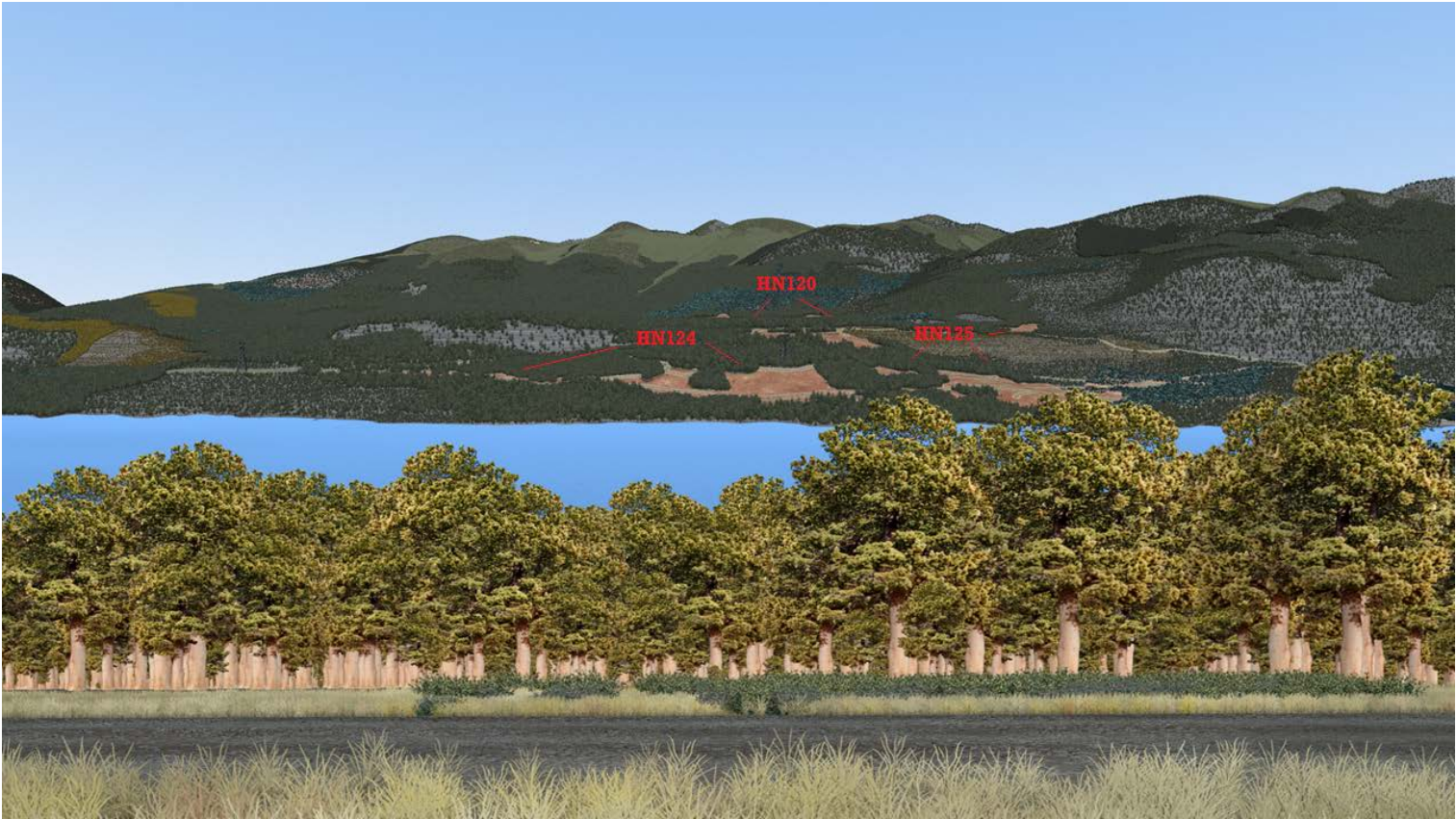


Figure 4: HN120, HN124 and HN125 from Viewpoint 3 – Sts’ailes FSR

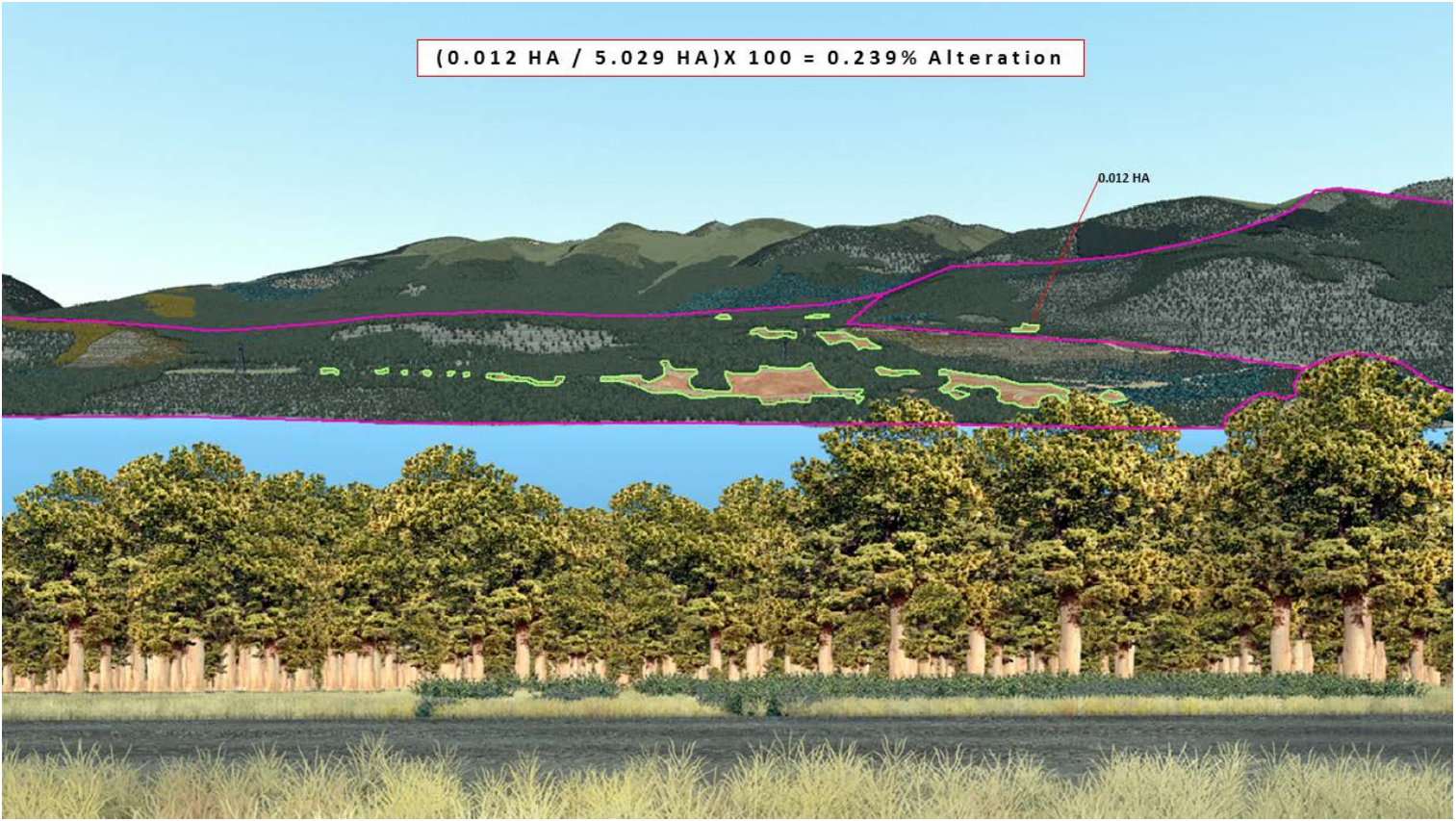


Figure 5: Projected Alteration of HN120, HN124 and HN125 (HN999 is visually non-evident) from Viewpoint 3

Table 5: Viewpoint 3 – Sts’ailes FSR

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 3.0 – Sts’ailes FSR			
Viewpoint Coordinates: 49° 43’ 47” N 122° 7’ 45” W			
Proposed Development			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN125	0.012	5.029	0.239%
Subtotal of Proposed Development	0.012	--	0.239%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 3.0		--	0.239%
Visual Quality Objective Achieved from Viewpoint 3.0		--	Retention
* relative units of area			

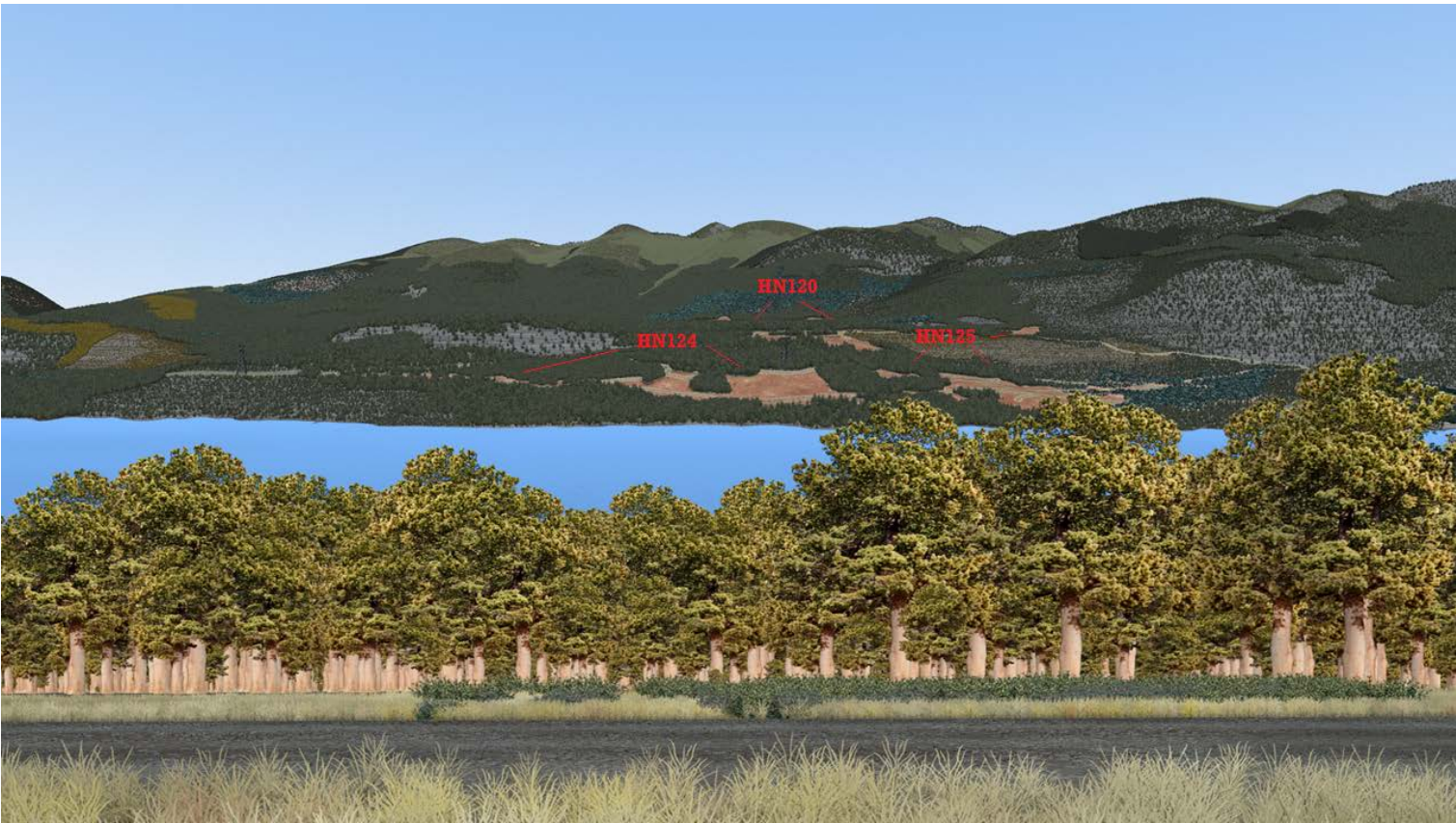


Figure 6: HN120, HN124 and HN125 from Viewpoint 3 – Sts’ailes FSR

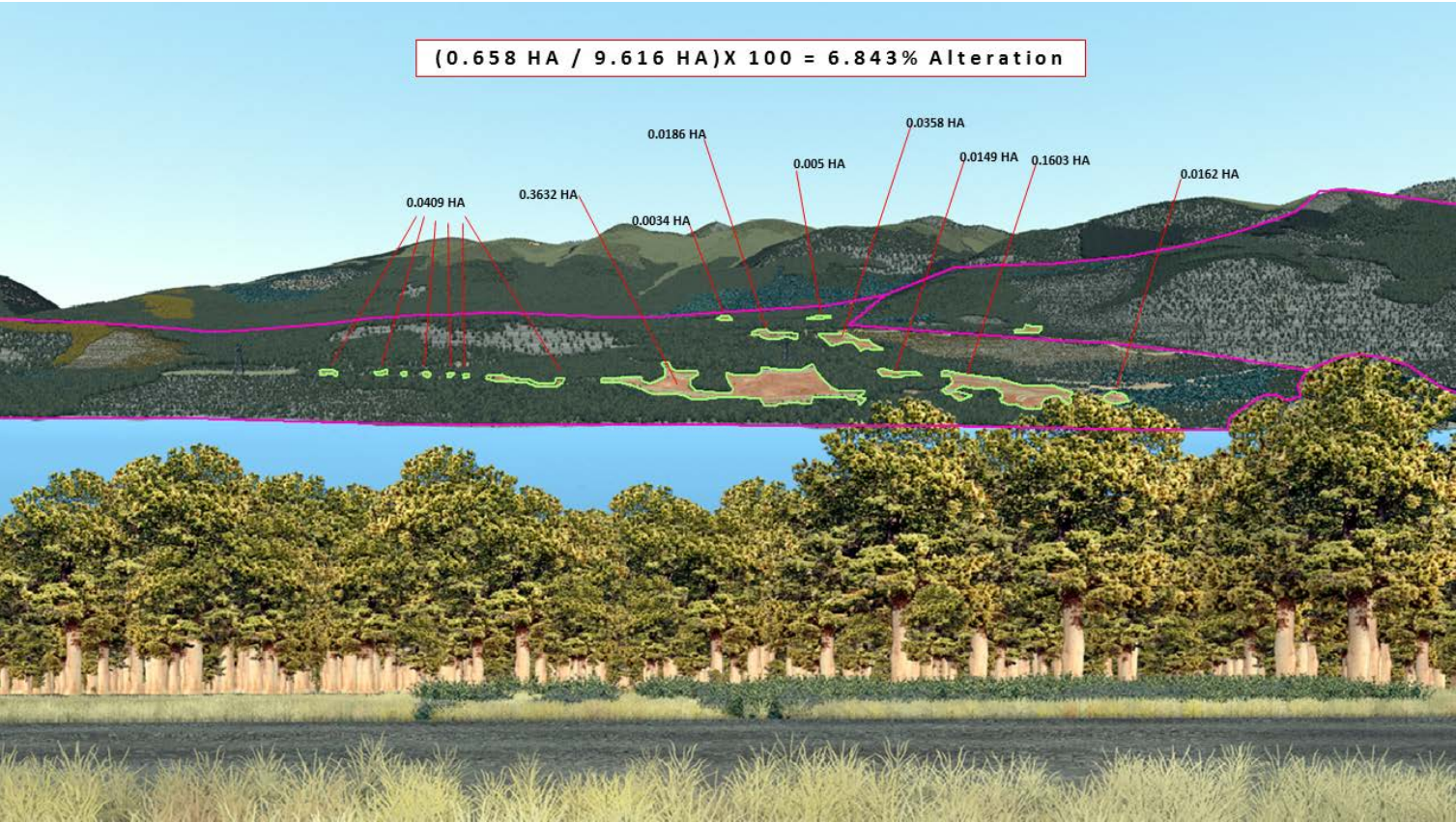


Figure 7: Projected Alteration of HN120, HN124 and HN125 (HN999 is visually non-evident) from Viewpoint 3

Table 6: Viewpoint 3 – Sts’ailes FSR

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 3.0 – Sts’ailes FSR			
Viewpoint Coordinates: 49 ⁰ 43’ 47’’ N 122 ⁰ 7’ 45’’ W			
Proposed Development			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN120	0.0628	9.616	0.652%
HN124	0.4041	9.616	4.201%
HN125	0.1914	9.616	1.990%
Subtotal of Proposed Development	0.658	--	6.843%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 3.0		--	6.843%
Visual Quality Objective Achieved from Viewpoint 3.0		--	Partial Retention
* relative units of area			



Figure 8: HN120, HN124 and HN125 from Viewpoint 4 – North Harrison Shore

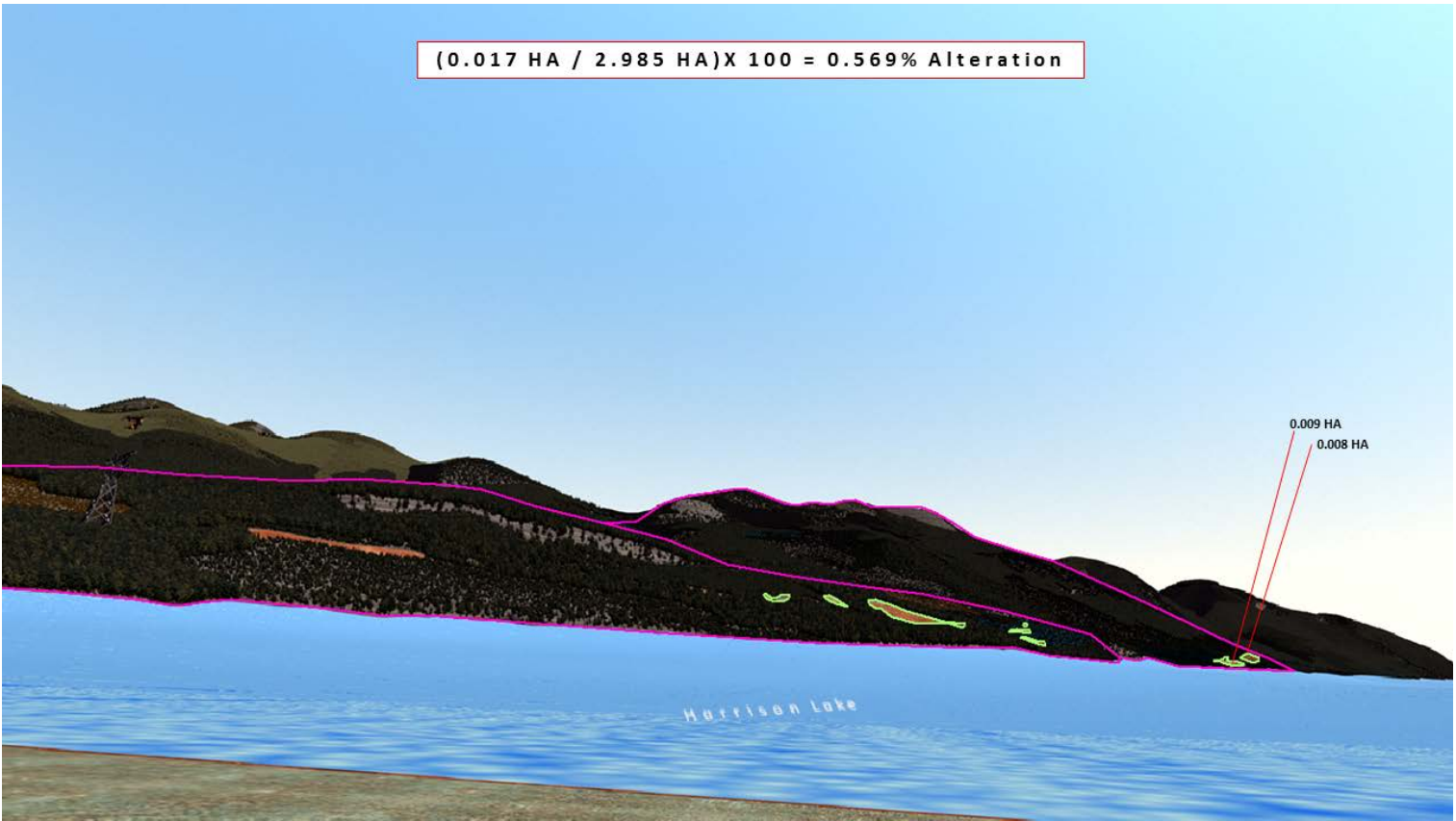


Figure 9: Projected Alteration of HN124 and HN999 (HN120 and HN125 are visually non-evident) from Viewpoint 4

Table 7: Viewpoint 4 – North Harrison Shore

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 4.0 – North Harrison Shore			
Viewpoint Coordinates: 49° 44' 53" N 122° 8' 43" W			
Proposed Development			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN999	0.017	2.985	0.569%
Subtotal of Proposed Development	0.017	--	0.569%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 4.0		--	0.569%
Visual Quality Objective Achieved from Viewpoint 4.0		--	Partial Retention
* relative units of area			



Figure 10: HN120, HN124 and HN125 from Viewpoint 4 – North Harrison Shore

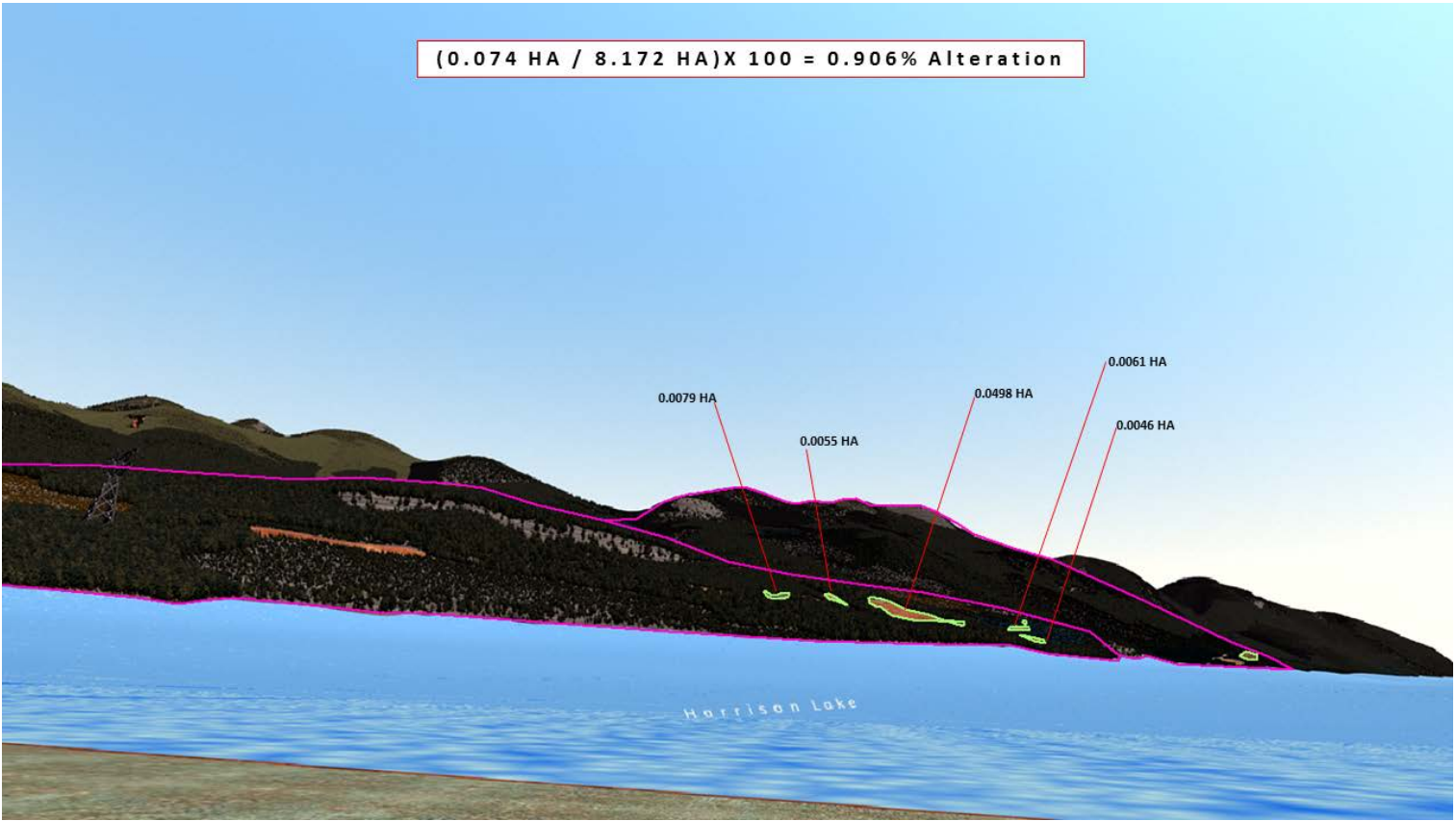


Figure 11: Projected Alteration of HN124 and HN999 (HN120 and HN125 are visually non-evident) from Viewpoint 4

Table 8: Viewpoint 4 – North Harrison Shore

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 4.0 – North Harrison Shore			
Viewpoint Coordinates: 49° 44' 53" N 122° 8' 43" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN124	0.074	8.172	0.906%
Subtotal of Proposed Development	0.074	--	0.906%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 4.0		--	0.906%
Visual Quality Objective Achieved from Viewpoint 4.0		--	Retention
* relative units of area			

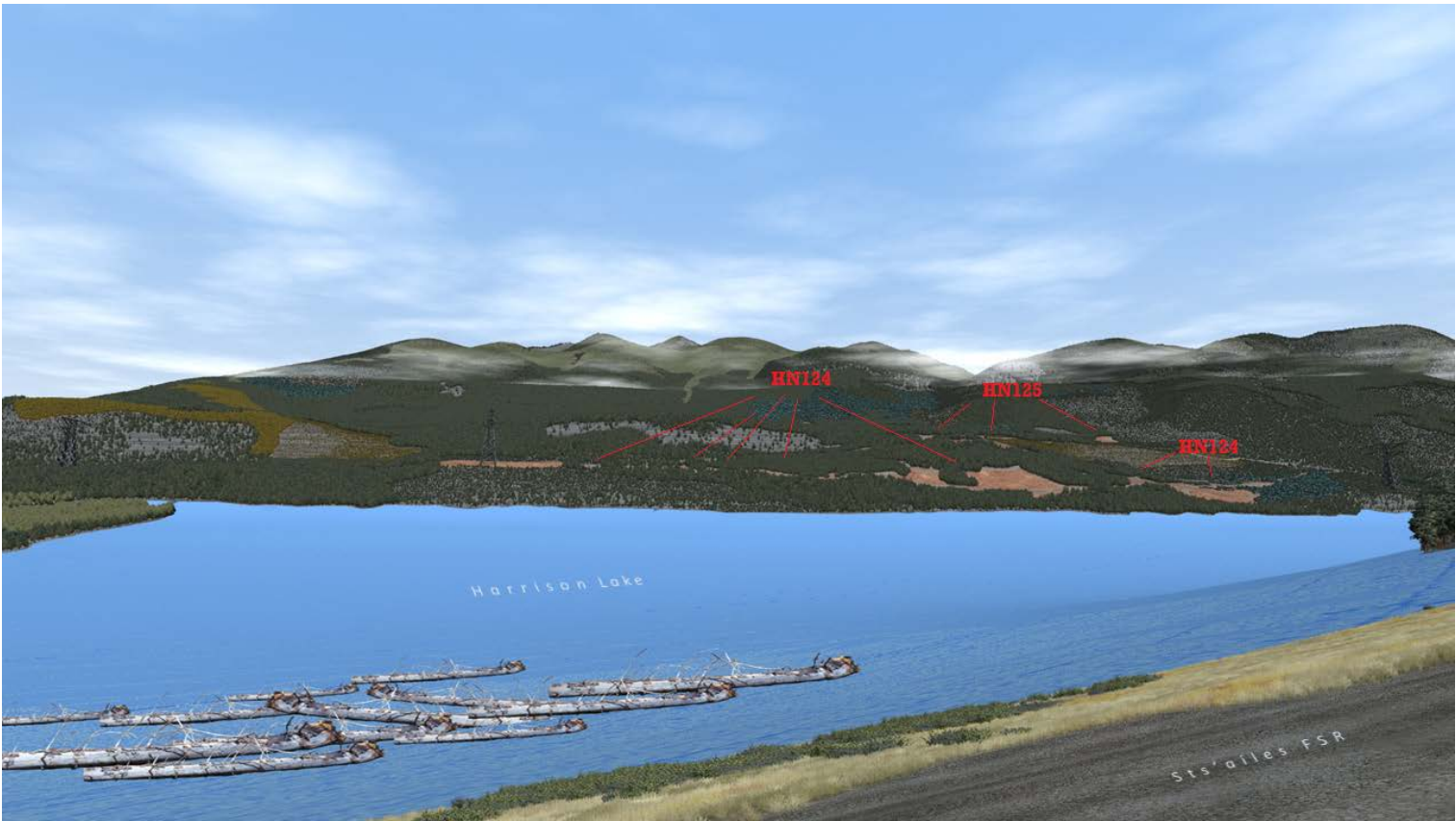


Figure 12: HN120, HN124 and HN125 from Viewpoint 5 – Tipella

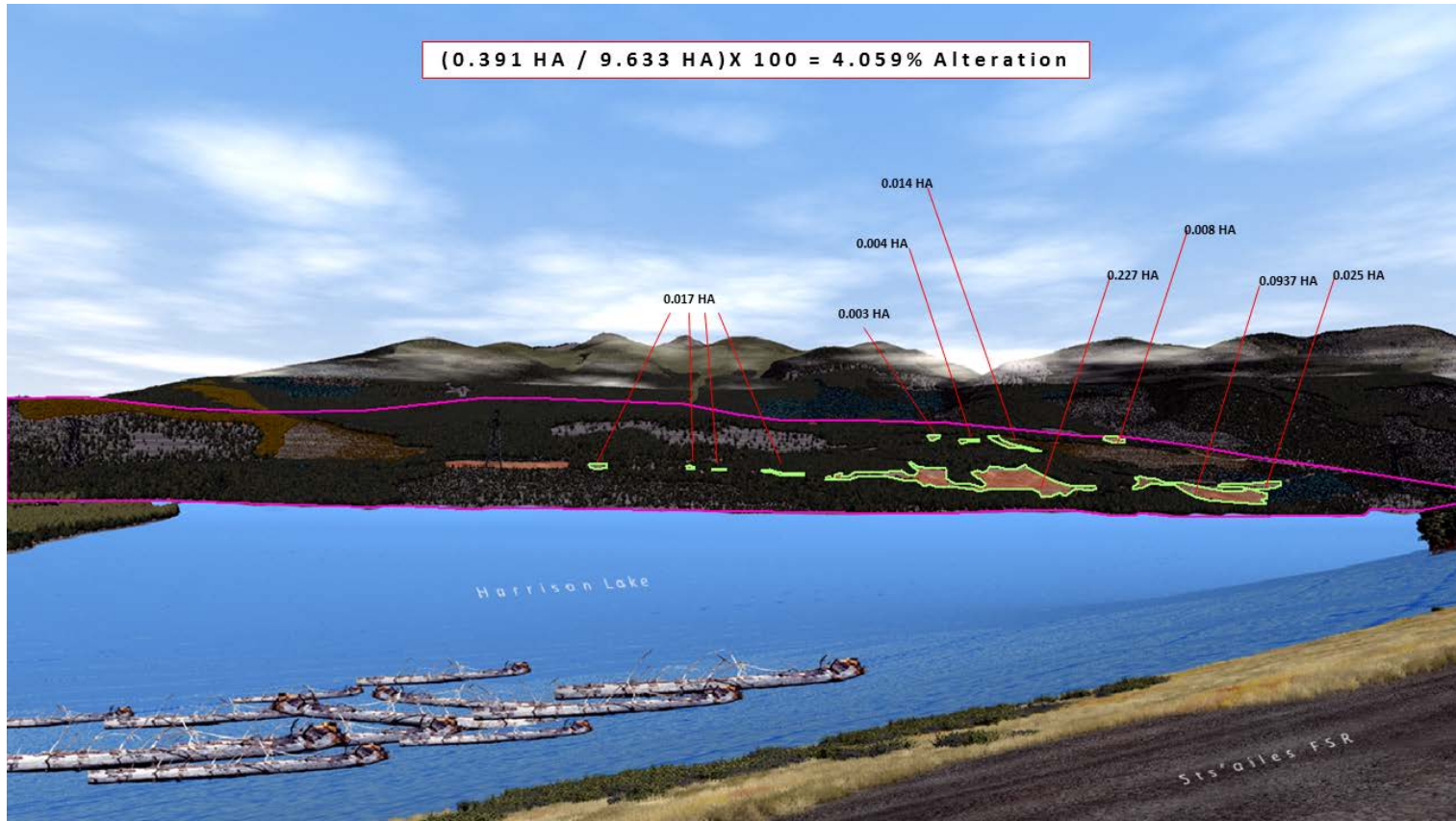


Figure 13: Projected Alteration of HN120, HN124 and HN125 (HN999 is visually non-evident) from Viewpoint 5

Table 9: Viewpoint 5 – Tipella

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 5.0 – Tipella			
Viewpoint Coordinates: 49 ⁰ 44' 9" N 122 ⁰ 8' 45" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN124	0.362	9.633	3.758%
HN125	0.029	9.633	0.301%
Subtotal of Proposed Development	0.391	--	4.059%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 5.0		--	4.059%
Visual Quality Objective Achieved from Viewpoint 5.0		--	Partial Retention
* relative units of area			

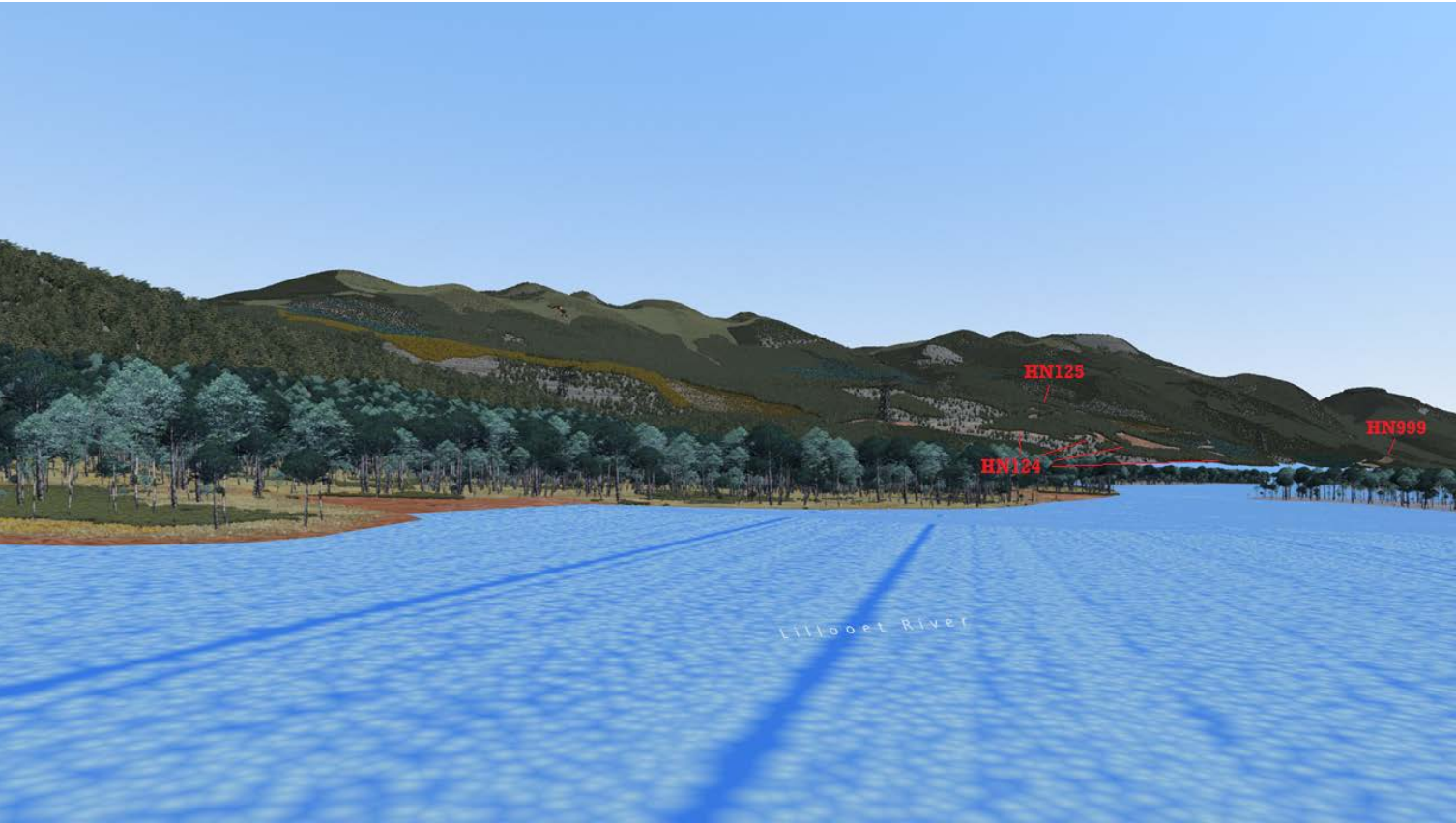


Figure 14: HN124, HN125 and HN999 from Viewpoint 6 – Lillooet River

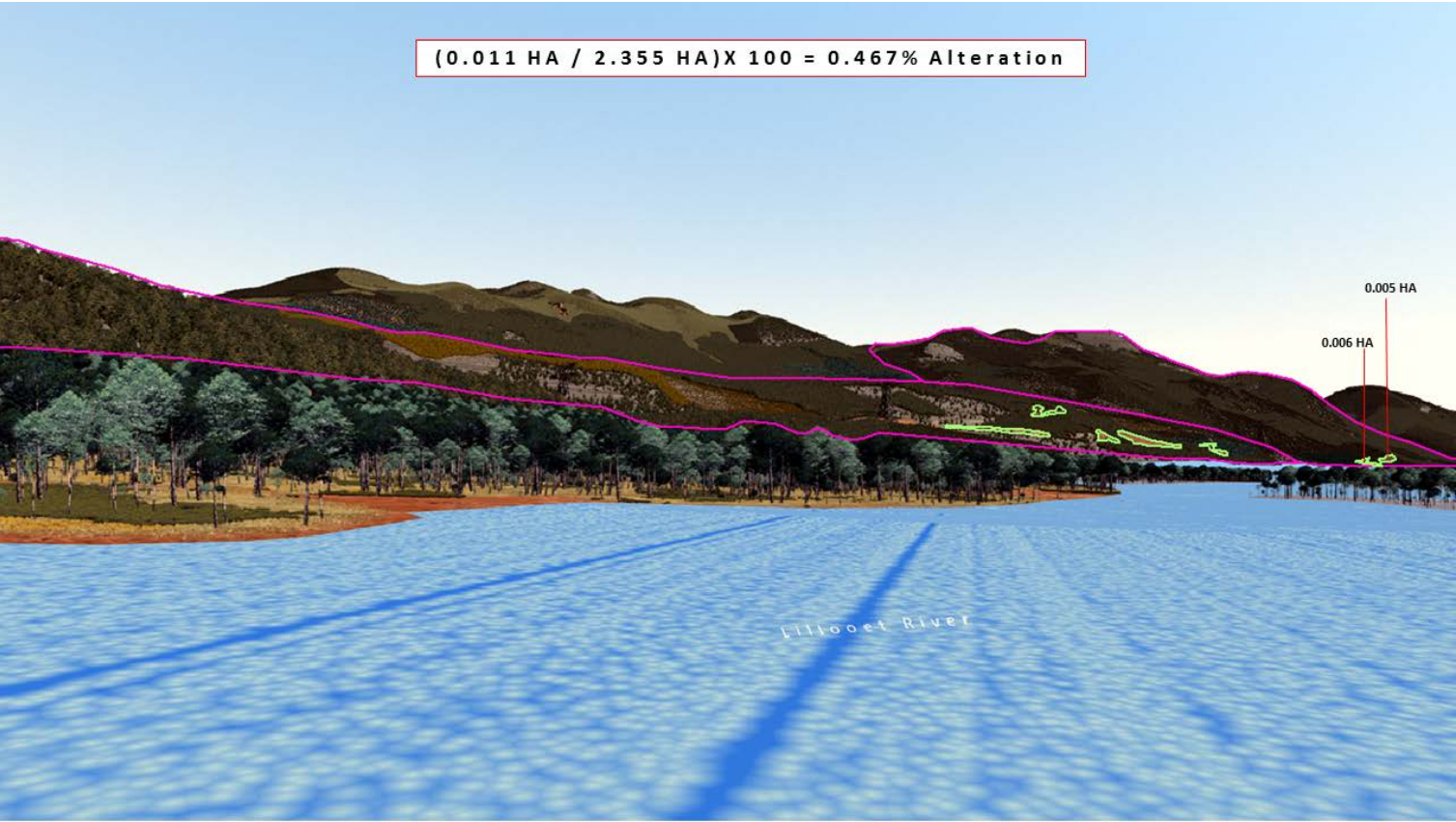


Figure 15: Projected Alteration of HN124, HN125 and HN999 (HN120 is visually non-evident) from Viewpoint 6

Table 10: Viewpoint 6 – Lillooet River

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 6.0 – Lillooet River			
Viewpoint Coordinates: 49° 45' 12" N 122° 10' 10" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN999	0.011	2.355	0.467%
Subtotal of Proposed Development	0.011	--	0.467%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 6.0		--	0.467%
Visual Quality Objective Achieved from Viewpoint 6.0		--	Retention
* relative units of area			

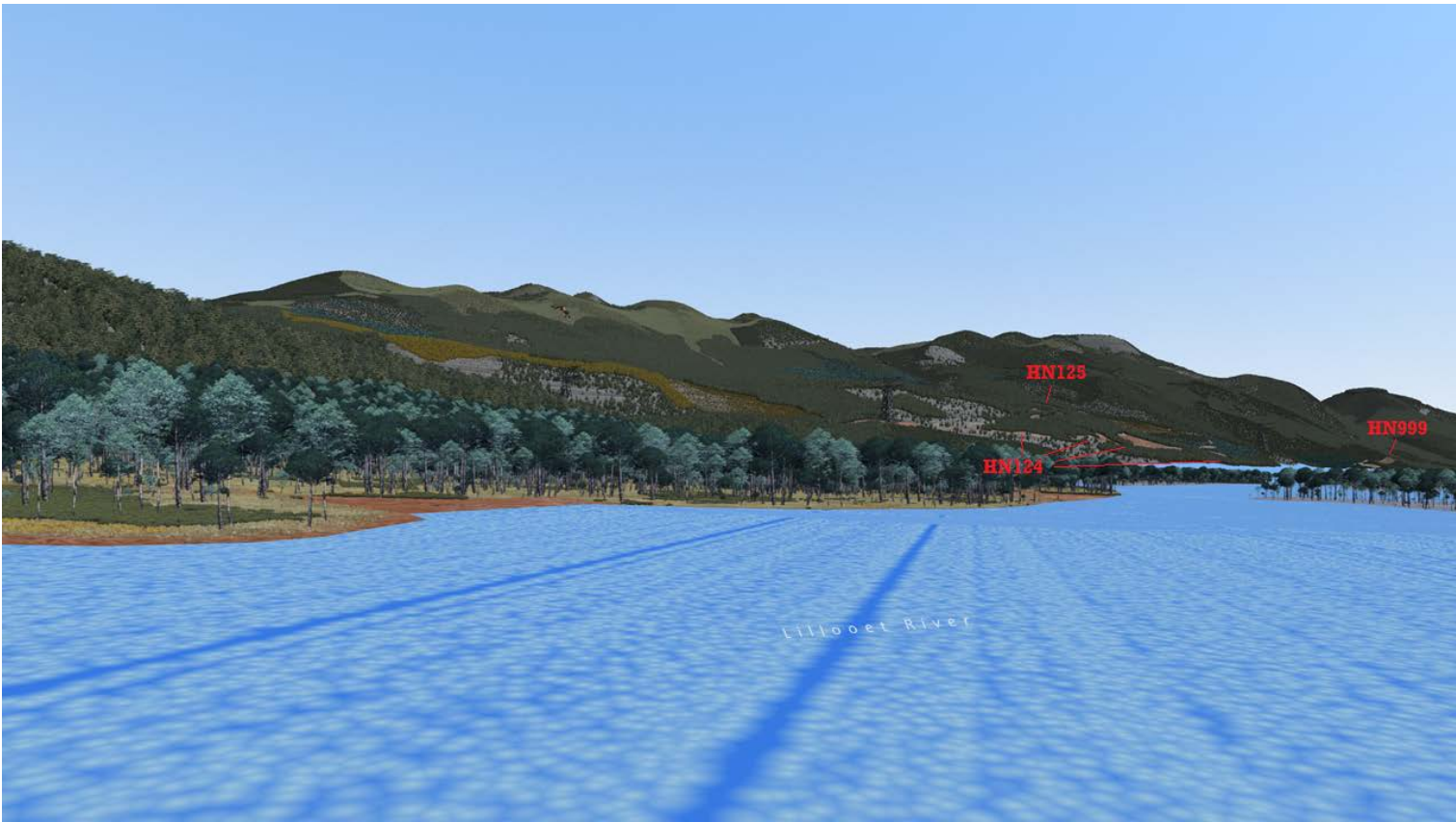


Figure 16: HN124, HN125 and HN999 from Viewpoint 6 – Lillooet River

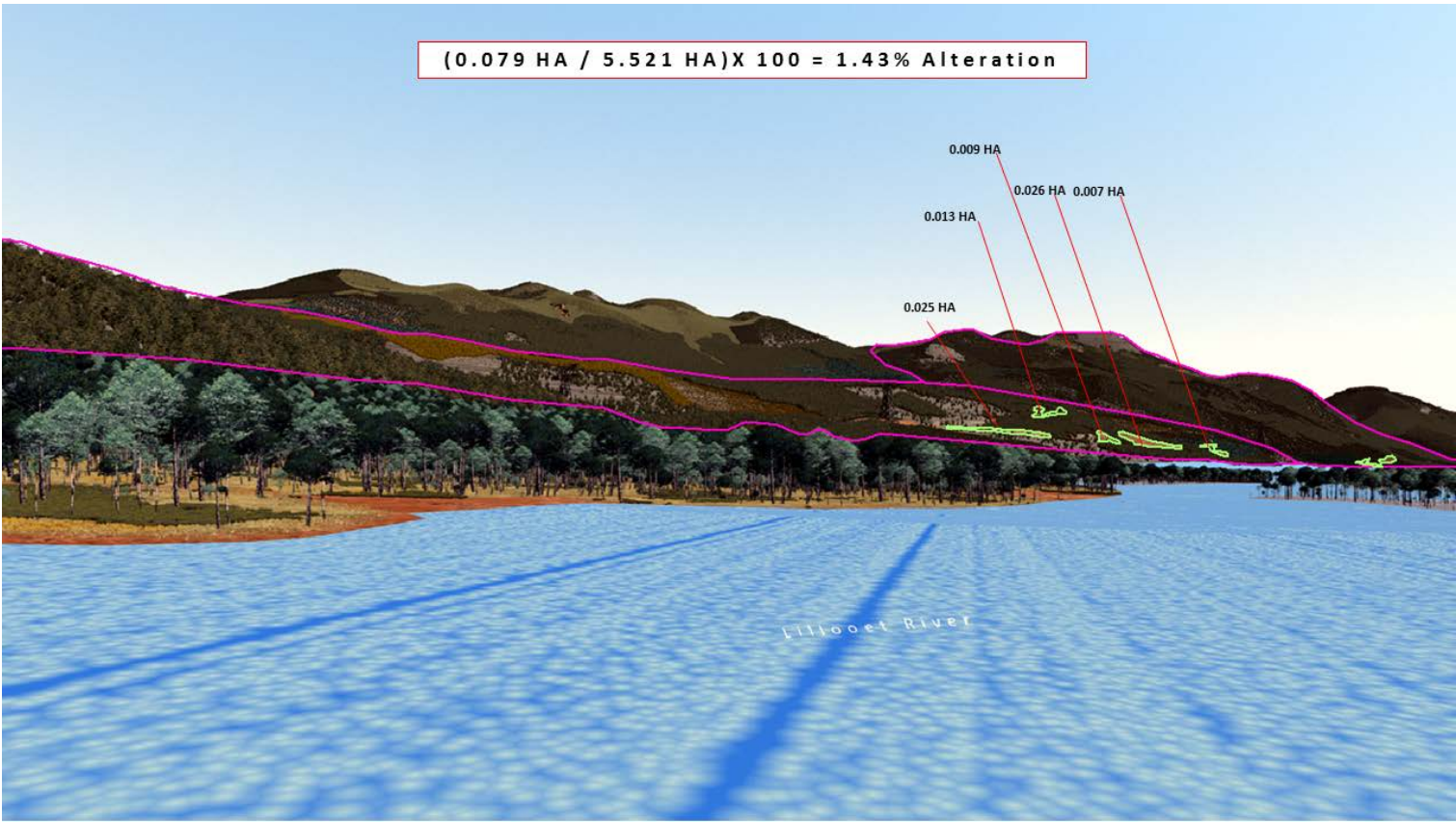


Figure 17: Projected Alteration of HN124, HN125 and HN999 (HN120 is visually non-evident) from Viewpoint 6

Table 11: Viewpoint 6 – Lillooet River

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 6.0 Lillooet River			
Viewpoint Coordinates: 49° 45' 12" N 122° 10' 10" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN124	0.066	5.521	1.195%
HN125	0.013	5.521	0.235%
Subtotal of Proposed Development	0.079	--	1.430%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 6.0		--	1.430%
Visual Quality Objective Achieved from Viewpoint 6.0		--	Partial Retention
* relative units of area			

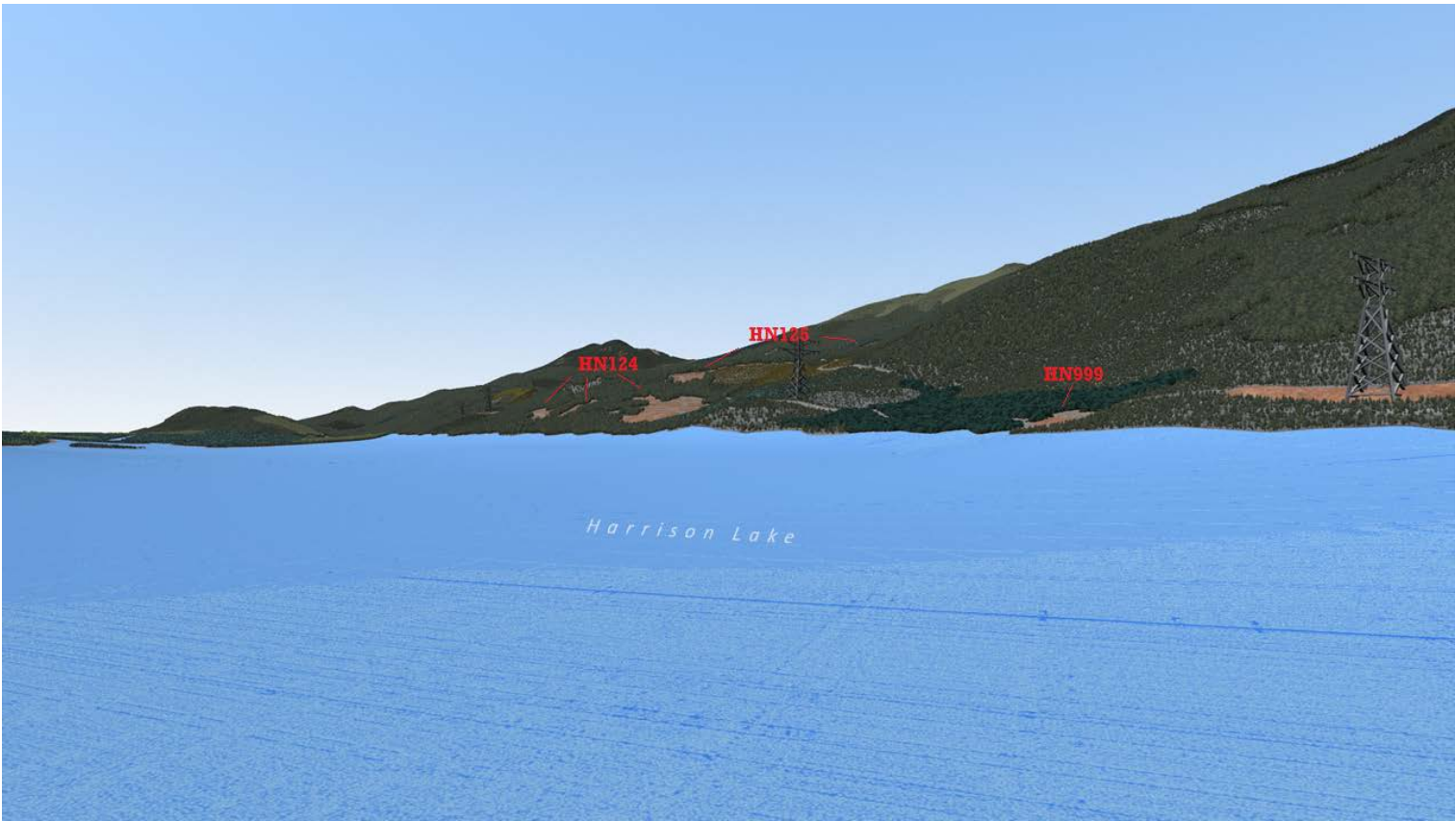


Figure 18: HN124, HN125 and HN999 from Viewpoint 7 – Recreation Harrison North

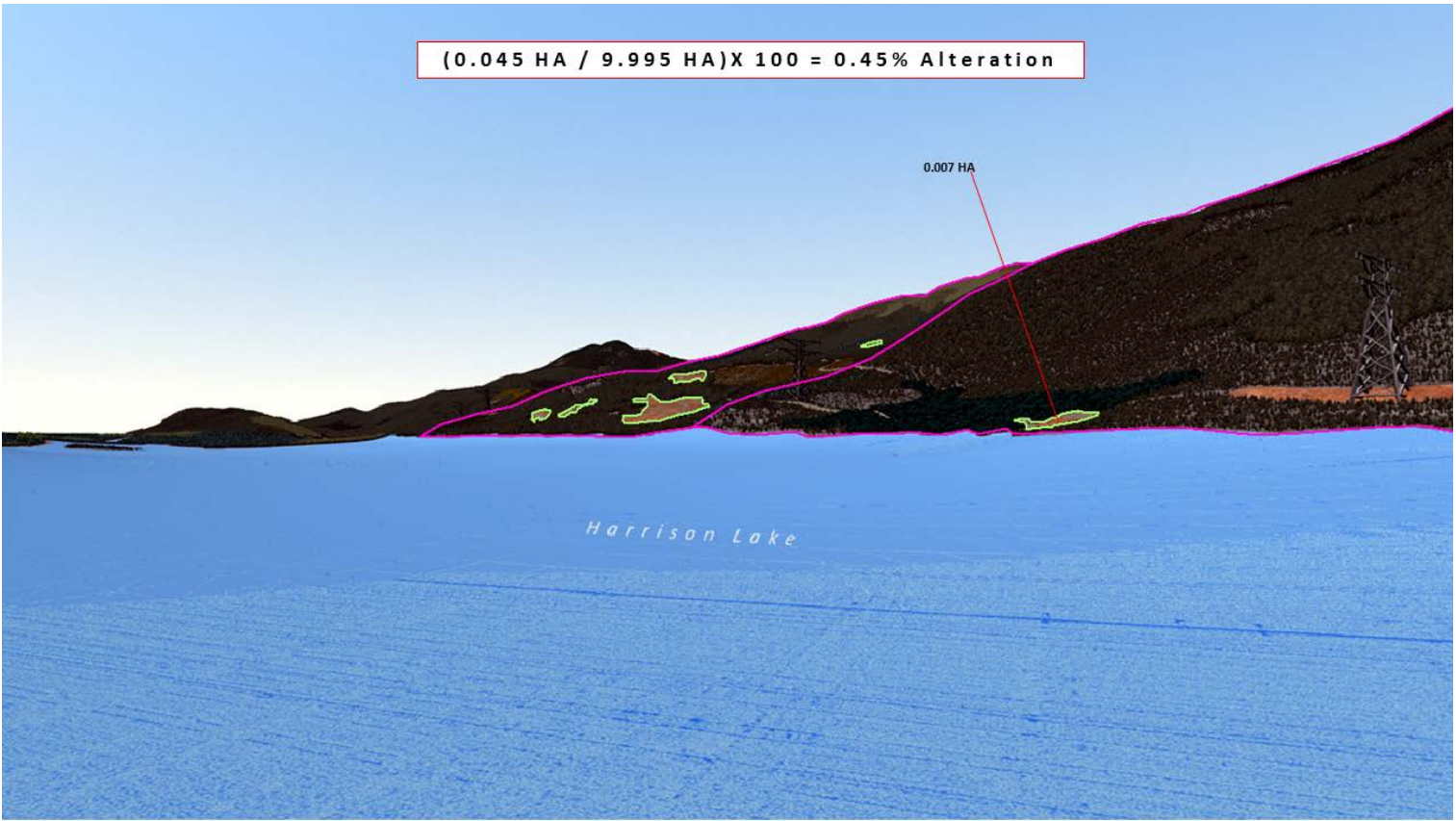


Figure 19: Projected Alteration of HN124, HN125 and HN999 (HN120 is visually non-evident) from Viewpoint 7

Table 12: Viewpoint 7 – Recreation Harrison North

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 7.0 – Recreation Harrison North			
Viewpoint Coordinates: 49° 43' 10" N 122° 5' 4" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN999	0.045	9.995	0.45%
Subtotal of Proposed Development	0.045	--	0.45%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 7.0		--	0.450%
Visual Quality Objective Achieved from Viewpoint 7.0		--	Retention
* relative units of area			

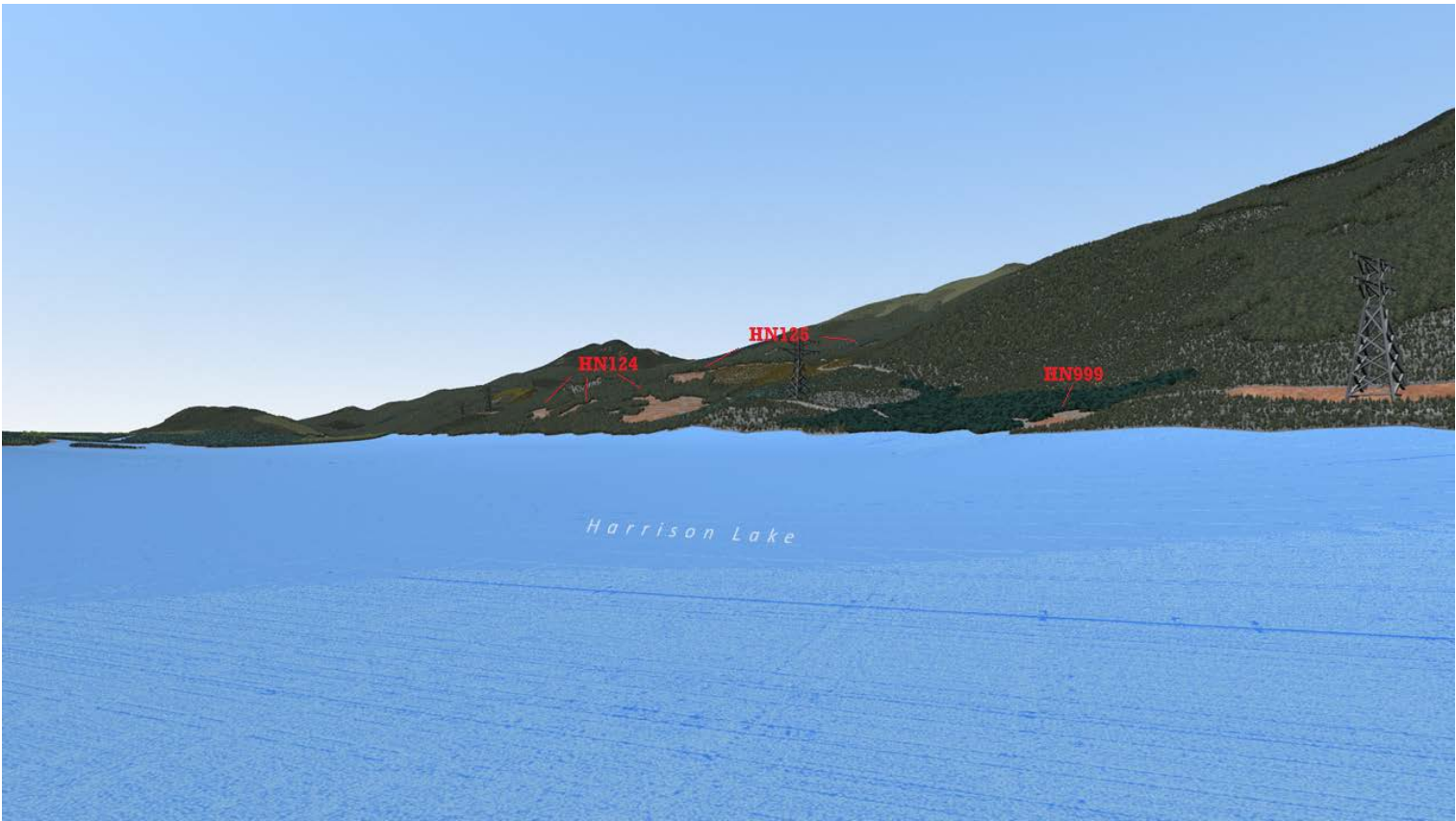


Figure 20: HN124, HN125 and HN999 from Viewpoint 7 – Recreation Harrison North

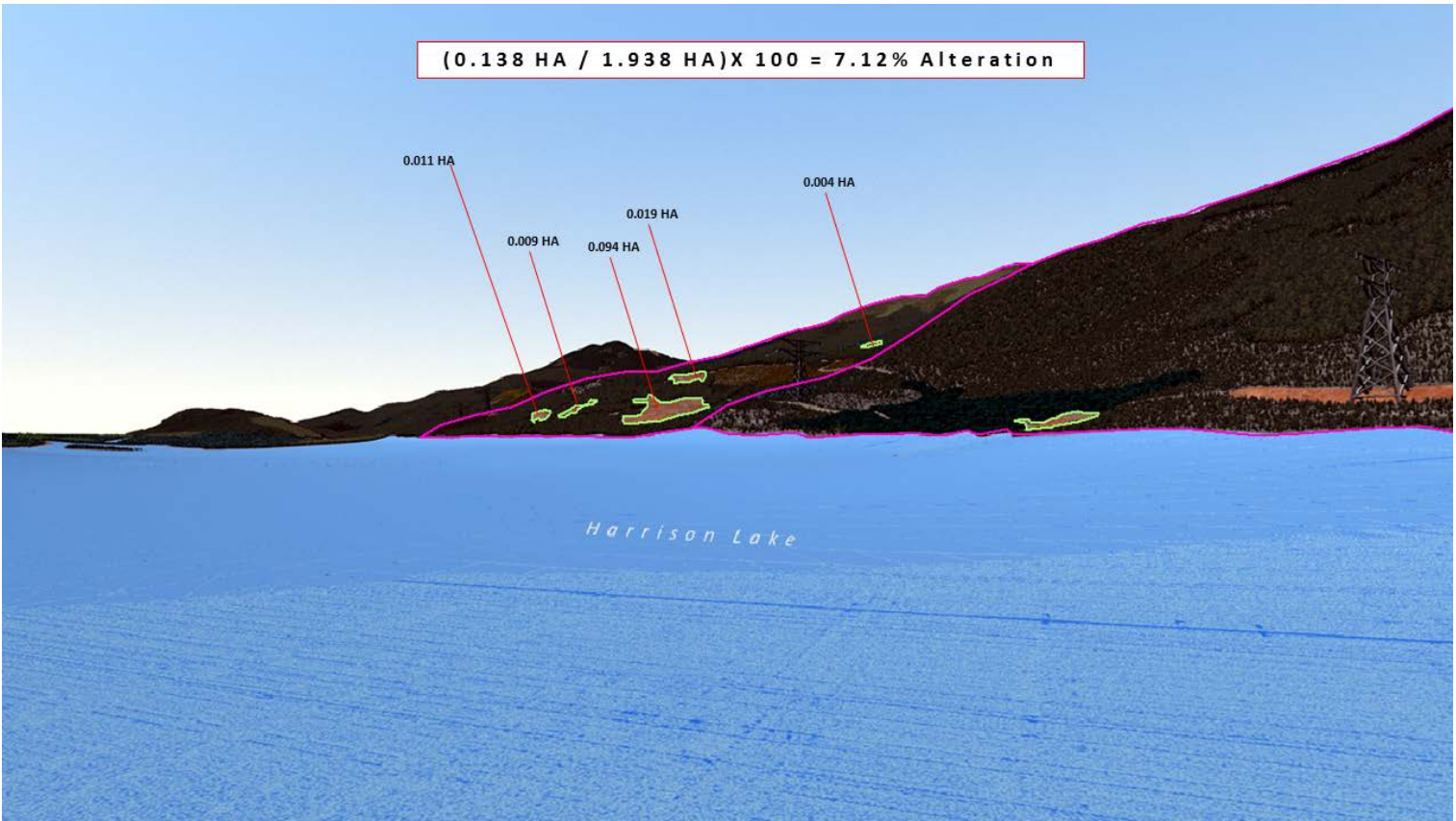


Figure 21: Projected Alteration of HN124, HN125 and HN999 (HN120 is visually non-evident) from Viewpoint 7

Table 13: Viewpoint 7 – Recreation Harrison North

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 7.0 – Recreation Harrison North			
Viewpoint Coordinates: 49 ⁰ 43' 10" N 122 ⁰ 5' 4" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN124	0.115	1.938	5.933%
HN125	0.023	1.938	1.186%
Subtotal of Proposed Development	0.138%	--	7.120%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 7.0		--	7.120%
Visual Quality Objective Achieved from Viewpoint 7.0		--	Modification
* relative units of area			

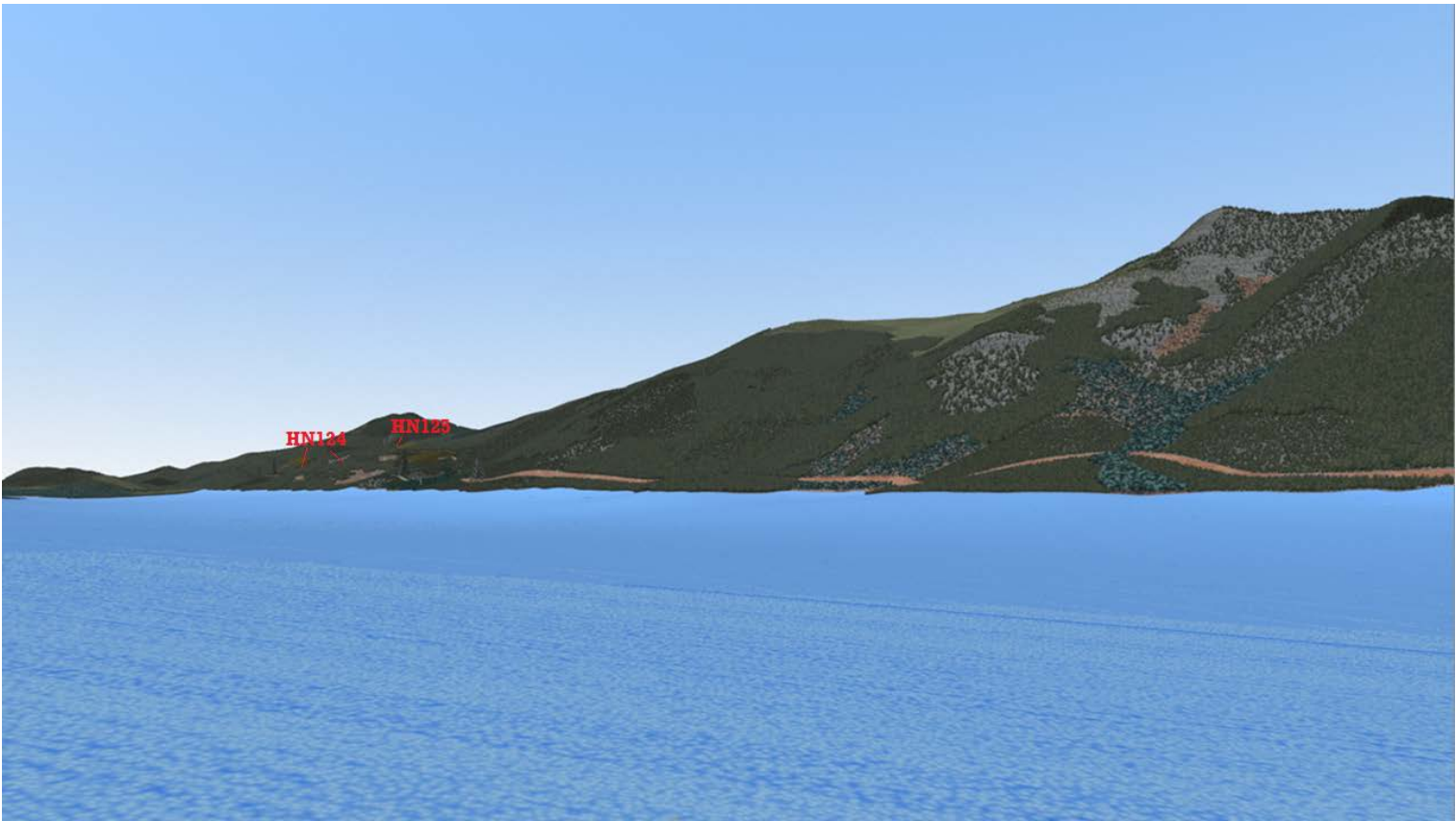


Figure 22: HN124 and HN125 from Viewpoint 8 – Five Mile Bay

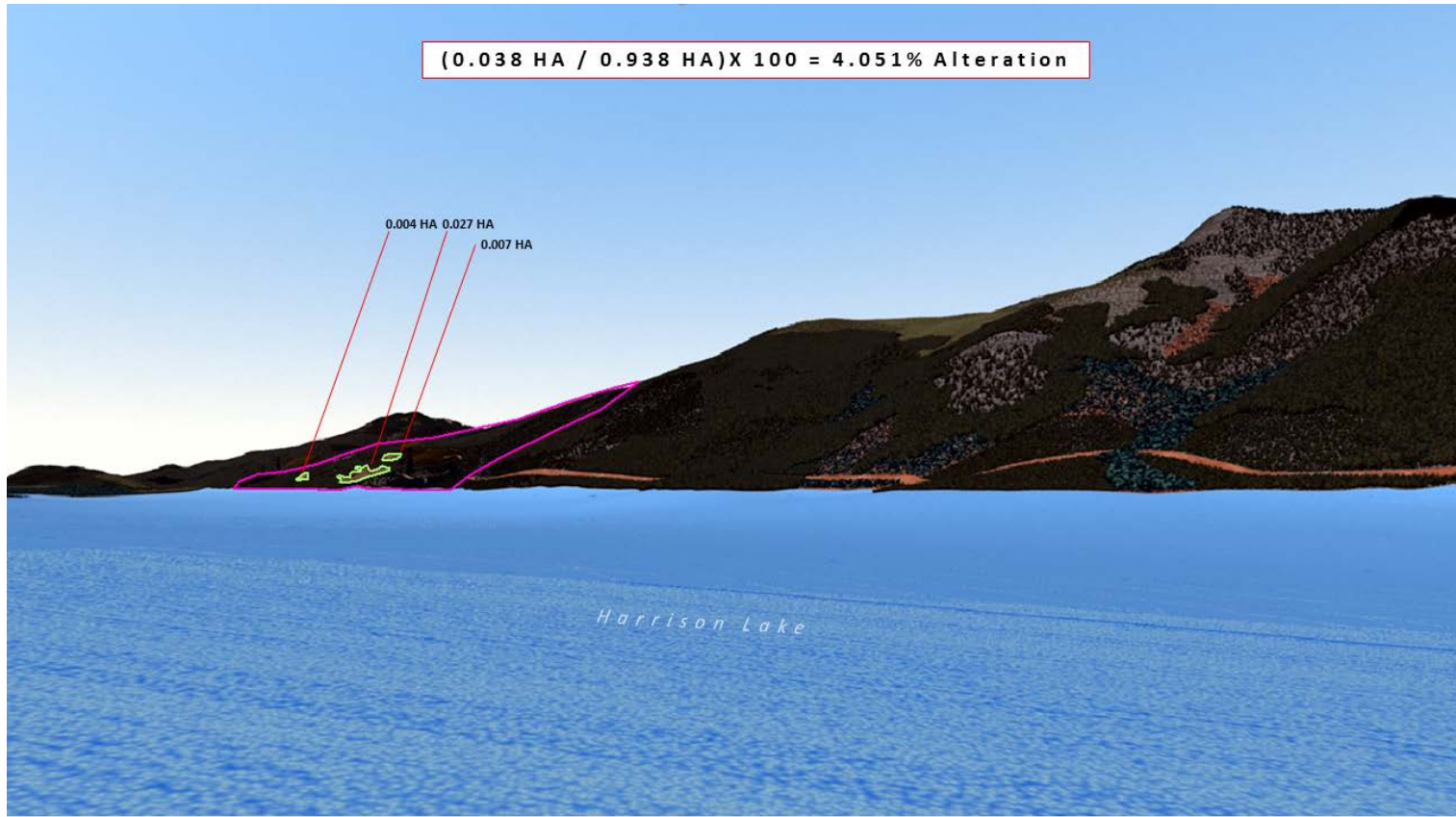


Figure 23: Projected Alteration of HN124 and HN125 (HN120 and HN999 are visually non-evident) from Viewpoint 8

Table 14: Viewpoint 8 –Five Mile Bay

Existing Visual Condition (EVC) and Percent Alteration Calculations			
Viewpoint 8.0 – Five Mile Bay			
Viewpoint Coordinates: 49 ⁰ 41' 43" N 122 ⁰ 3' 6" W			
Road or Block	Visible Proposed Development in Render*	Visible Landform Area*	Percent Alteration within Landform
HN124	0.031	0.938	3.305%
HN125	0.007	0.938	0.746%
Subtotal of Proposed Development	0.038	--	4.051%
Non-Visually Effective Green-Up (VEG) Areas			
Block or Road	Visible Non-VEG in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Non-VEG Areas	--	--	--
Known Future Developments			
Block or Road	Known Future Development in Render*	Visible Landform in Render*	Percent Alteration within Landform
--	--	--	--
Subtotal of Known Future Development	--	--	--
Total Percent Alteration from Viewpoint 8.0		--	4.051%
Visual Quality Objective Achieved from Viewpoint 8.0		--	Partial Retention
* relative units of area			

Appendix A: Legislative Background

Blocks under Timber Sale License A94293 operate under BC Timber Sales approved FSP (Amendment #44) in the Chilliwack Forest District. The FSP states that “all forest development activities must be consistent with the results and strategies specified in the approved FSP and the associated Visual Quality Objective (VQO) applicable to the area”.

The BCTS Chilliwack FSP, Section 181 of FRPA and Section 17 of the Government Actions Regulation (GAR) contain relevant legislation regarding visual quality objectives (VQO) in the Chilliwack Forest District. Specifically, the recommended Visual Quality Classes (rVQC) for scenic areas described in a letter to “All Licensees” dated October 1, 1999 (and subsequent amendment in effect April 18, 2013) from the Chilliwack Forest District Manager (“All Licensees” letter) are continued as Visual Quality Objectives (VQO) under FRPA and the FSP. In effect, all GAR Section 17 rVQCs are considered established VQO’s (eVQO). The amended letter (dated April 12, 2013) acknowledged that all revised VQOs and Scenic Areas as shown on the “Visual Quality Objectives Fraser Timber Supply Area” map dated January 31, 2013 (revised April 7, 2015) are established and were in effect as of April 18, 2013.

The “All Licensees” letter outlines licensee obligations regarding scenic area management within all known viewsheds across the Chilliwack Forest District. Furthermore, GAR Section 18 states that the categories of altered forest landscape prescribed in section 1.1 of the Forest Planning and Practices Regulation (FPPR) will apply to the visual quality objectives continued under Section 17 of GAR.

The proposed blocks lie amongst VLI #99 where any visual impact must be consistent with the qualitative and quantitative definitions of a Modification (M) altered forest landscape. In regards to categories of visually altered forest landscapes in the Forest Planning and Practices Regulation (FPPR), Section 1.1 defines Modification as:

Modification - consisting of an altered forest landscape in which the alteration, when assessed from a significant public viewpoint is

- very easy to see,
- large in scale and natural in its appearance, or
- small to medium in scale but with some angular characteristics

These three factors are required for consideration in order to determine if the VQO will be met.

Though not required under the FPPR, this visual impact assessment (VIA) report has assessed whether the proposed development in combination with non-visually effective green-up (non-VEG) areas and/or any known future developments will be consistent with the Visual Impact Assessment Guidebook (2001) approach to numerically assessing potential visual quality impacts using percent alteration calculations. Based upon guidelines, the percent alteration calculation for a Modification altered forest landscape should not exceed 18.0%

This definition factors three measures that are used to determine whether the planned blocks and roads are consistent with the VQO:

1. **Location** - How the block responds to lines of force
2. **Size** - Scale of alteration relative to natural features and historic openings
3. **Shape** - Natural, irregular non-rectilinear boundaries

While the FPPR describes the five categories of a visually altered forest landscape qualitatively; legislation, policy and guidelines under the FPC had described the categories of altered forest landscapes both qualitatively and quantitatively. The Visual Impact Assessment (VIA) Guidebook provides qualitative definitions of visually altered forest landscapes similar to the FPPR but also provides a numeric approach to determining percent alteration values that can be used to predict compliance with qualitative visual quality objectives. Further, FRPA General Bulletin Number 9 states that although percent alteration is not part of the legal definition for any category of altered forest landscape, the numerical data associated with percent alteration ranges were derived through research and should remain relevant to each VQO. Percent alteration values were considered in this report as a guideline to help assess whether the proposed development is consistent with the applicable FPPR qualitative definition of visually altered forest landscape.

Appendix B: Visual Impact Methodology

This VIA report attempts to follow the intent of the visual impact assessment procedures outlined in the VIA Guidebook, and to present findings in a manner which will aid the prescribing site plan forester in assessing whether the proposed development is consistent with the result or strategy for visual quality as outlined in the BCTS Chilliwack FSP.

All viewpoints were digitally modeled (rendered) using Visual Nature Studio 3 (VNS3) software. The digital terrain model (DTM) was built using 1:20,000 scale TRIM digital elevation data and forest cover information from the Land and Resource Data Warehouse (LRDW). Additional survey data collected by Infinity Pacific was incorporated into the TRIM in to order to more accurately depict the true lay of the land.

Digital Terrain Model (DTM) Project Form – Additional DTM Data	
Project Name: Port Douglas Blocks HN120 HN124 & HN125 – A94293 and HN999 (Log Dump)	
Base Map Info Used to Build Digital Terrain Model (DTM)	
TRIM: 1:20,000	Basemap source: LRDW
Mapsheet Number(s) Used: 092G080	
Digital Terrain Model Software Used: Visual Nature Studio	Software Version: 3.10
Date Started: March 2017	Date Completed: March 2017
Visual Impact Assessment Report Completed by: Infinity-Pacific Stewardship Group	
Visual Impact Assessment Report Contact: Jacquelin McNicol, TFT	Phone: 604-916-2178
Digital Terrain Modelling Contact: Daniel Kim	Phone: 604-870-1191 Ext. 113
Visual Impact Assessment Completed for: BC Timber Sales Chinook Business Area	

Appendix C: Google Earth Images



Figure 24: Google Earth image of Viewpoint 3.0 –Sts'ailes FSR

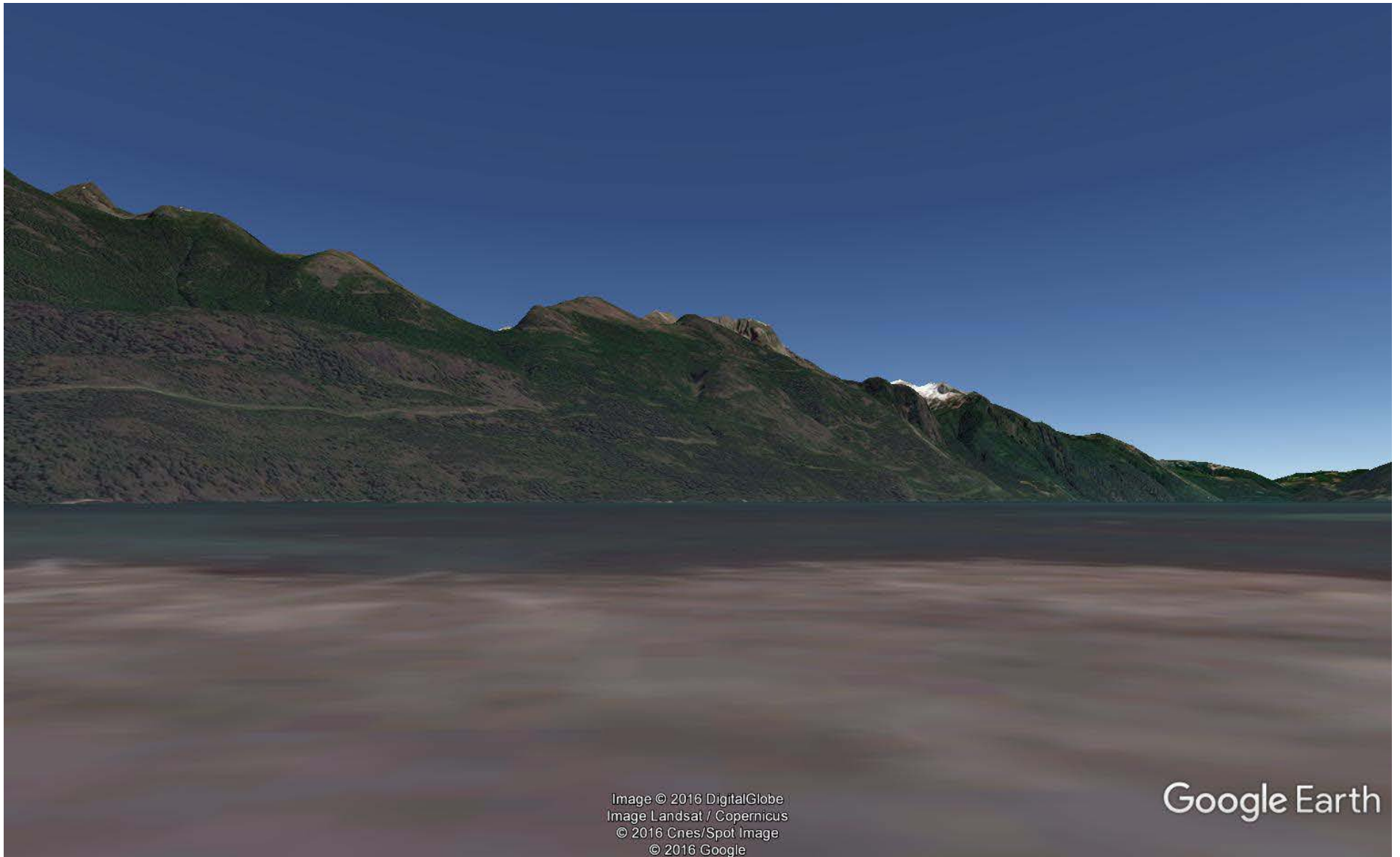


Figure 25: Google Earth image of Viewpoint 4.0 –North Harrison Shore

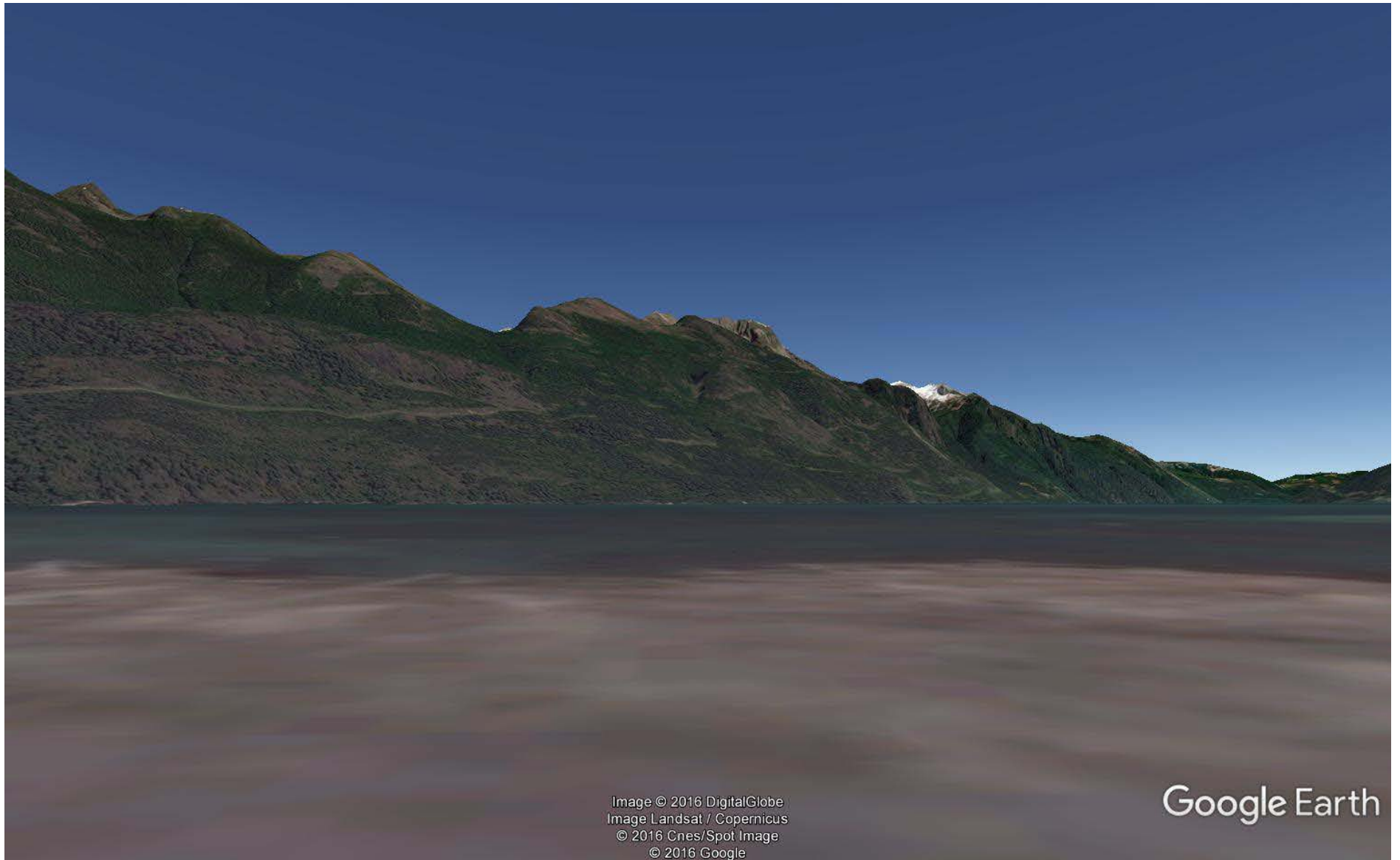


Figure 26: Google Earth image of Viewpoint 4.0 –North Harrison Shore



Figure 27: Figure 26: Google Earth image of Viewpoint 5.0 –Tipella

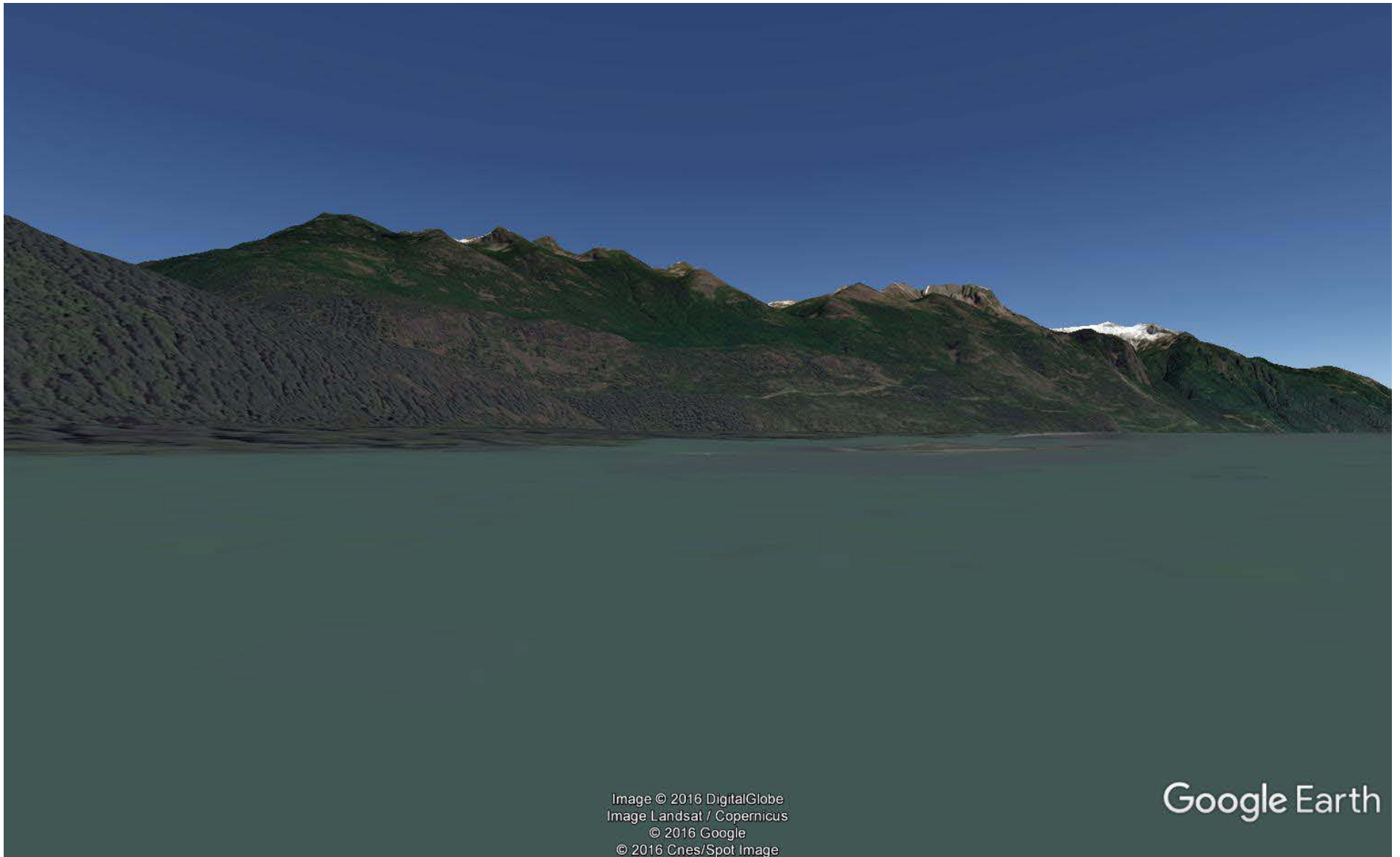


Figure 28: Google Earth image of Viewpoint 6.0 – Lillooet River

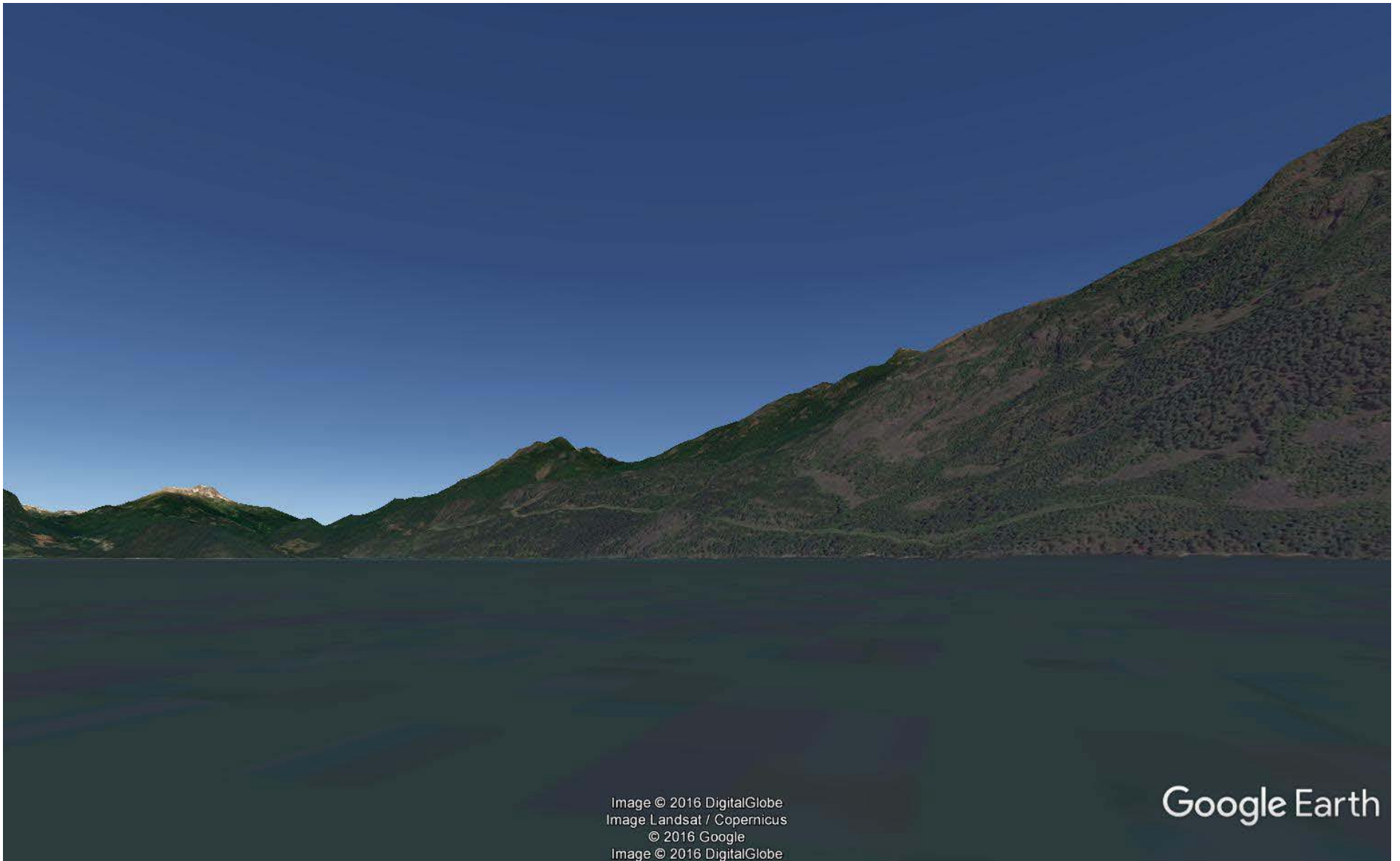


Figure 29: Google Earth image of Viewpoint 7.0 – Recreation Harrison North

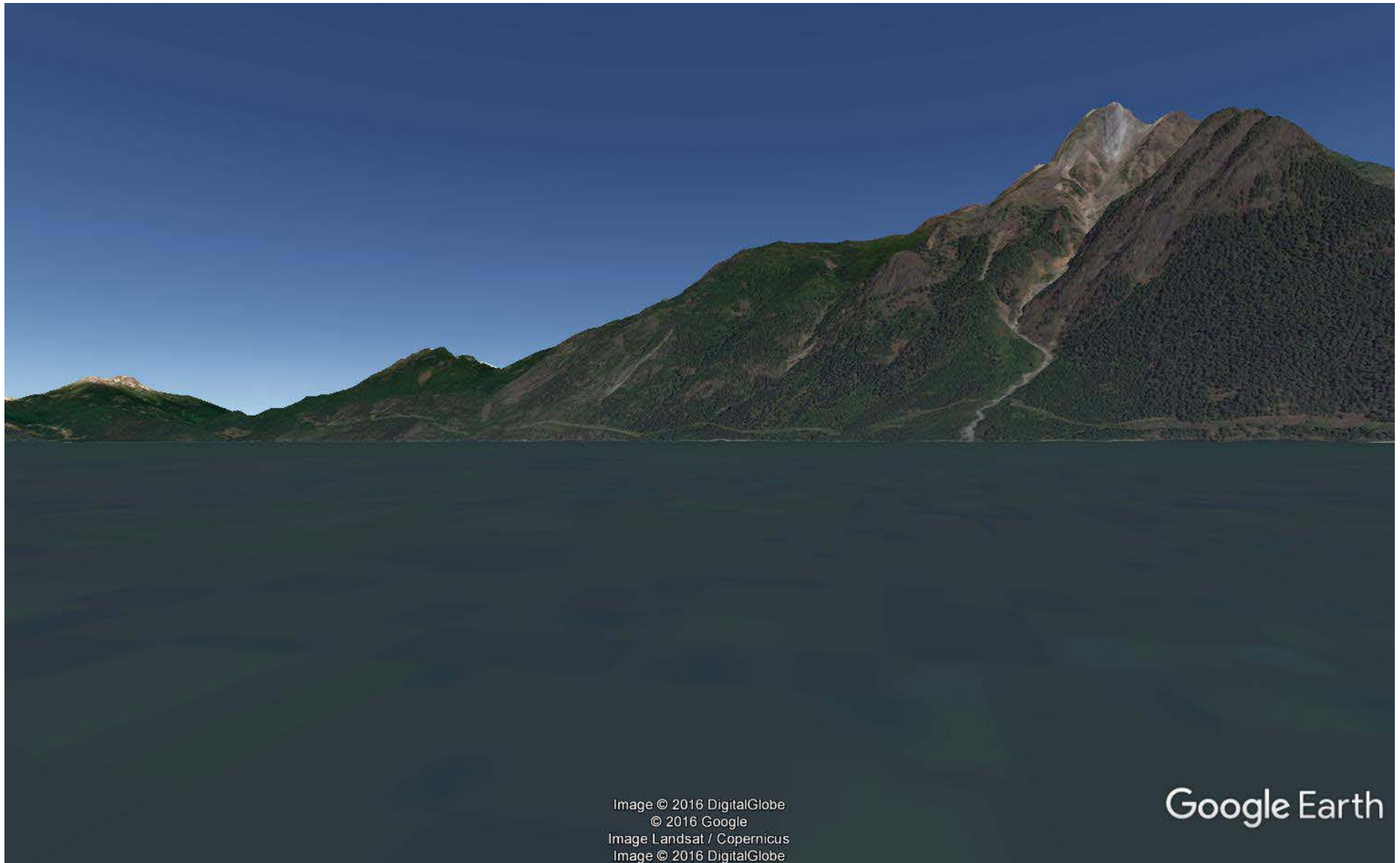


Image © 2016 DigitalGlobe
© 2016 Google
Image Landsat / Copernicus
Image © 2016 DigitalGlobe

Google Earth

Figure 30: Google Earth image of Viewpoint 8.0 – Five Mile Bay

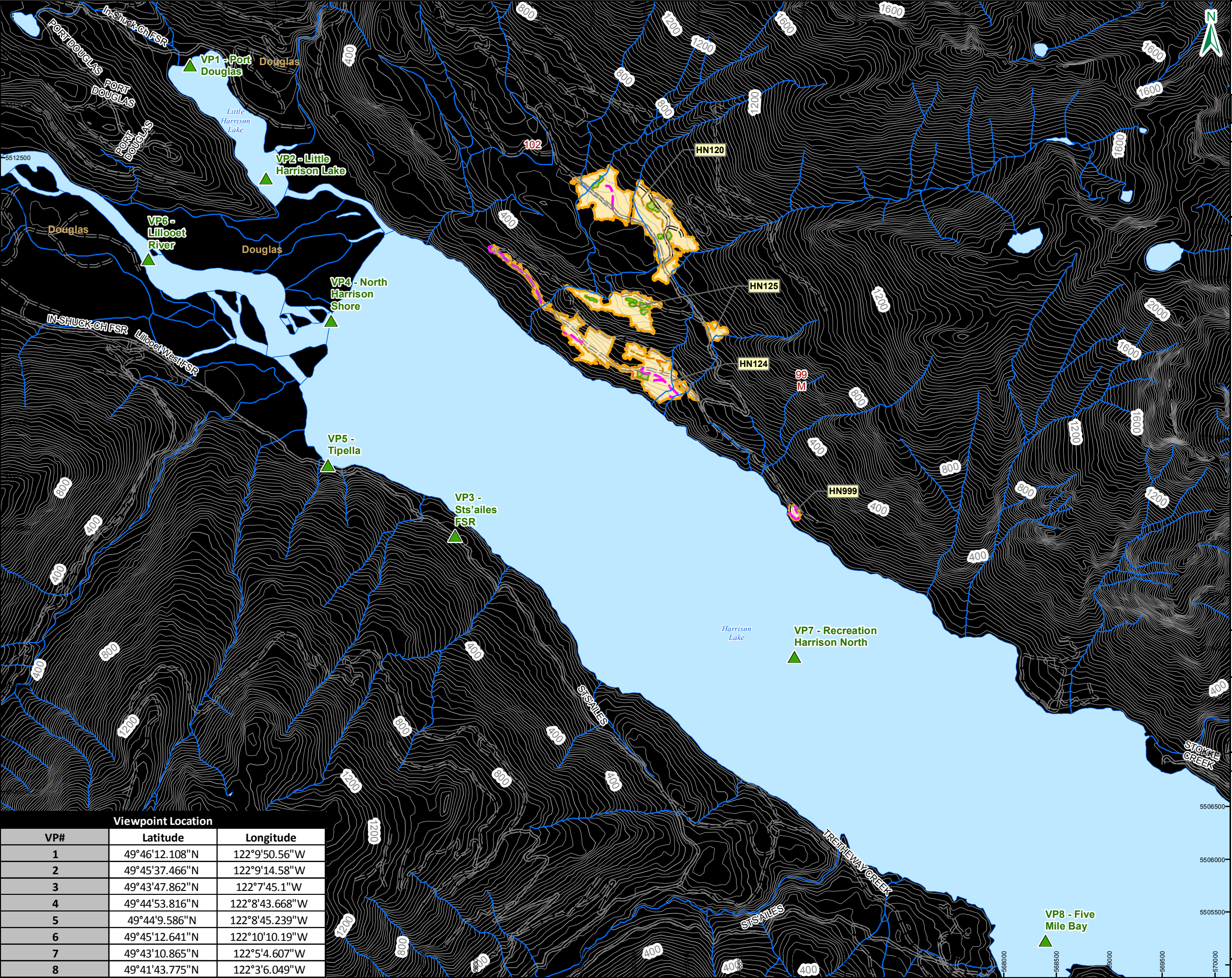
Appendix D: Viewpoint Photograph



Figure 31: Photograph from VP 1 - Port Douglas



Figure 32: Photograph from VP 2 - Little Harrison Lake



Viewpoint Location		
VP#	Latitude	Longitude
1	49°46'12.108"N	122°9'50.56"W
2	49°45'37.466"N	122°9'14.58"W
3	49°43'47.862"N	122°7'45.1"W
4	49°44'53.816"N	122°8'43.668"W
5	49°44'9.586"N	122°8'45.239"W
6	49°45'12.641"N	122°10'10.19"W
7	49°43'10.865"N	122°5'4.607"W
8	49°41'43.775"N	122°3'6.049"W

Visual Overview Map

Block: HN120, HN124, HN125

Forest Region: RSC
Forest District: DCK
Mapsheet: 092G080
Location: Harrison North
TSA: Fraser
FDU: Big Silver
BEC: CWHds1

UTM Zone: 10
UTM Easting: 564,269
UTM Northing: 5,509,432
Latitude: 49°44'2"N
Longitude: 122°6'29"W
Author: D. Kim
Print Date: 3/15/2017

Map Legend

View Point

Index Contour

Intermediate Contour

Strams

Existing Road

Bladed Trail

Designated Trail

Existing Road

Proposed Road

Retention Area

Net Block Boundary

Indian Reserves

VLI

Rivers

Lakes

Scale: 1:35,000

0 175 350 700 1,050 1,400 m

NAD 1983 UTM Zone 10N

Field Ribboning

Falling Boundary: Orange Printed

Riparian Reserve Zone: Orange Printed

Right of Way Boundary: Orange Printed

Retention Patch: Orange / Black Stripe

Road Reconnaissance: White

Road Centre Line: Pink Printed

Landing Location: Pink "Road Location"

Skid/Bladed Trail Location: Pink Printed

Deflection Line/Base Line: Green / White Stripe

Fish Stream: Red / White Stripe

Non-Fish Stream: Blue / White Stripe

Machine Free Zone: Red Printed

Traverse Station Marks: White

Cruise Strip Lines: Blue

Cruise Plot Centre: Blue and Yellow

Treatment Area Boundary: Green Printed

Retention Tree: Three Orange Dots

Boundary

Riparian

R/W

Location

Road Location

Trail

MEZ

Treatment

Magnetic Declination:

TSL A94293 - HN120, HN124, HN125

Map 1 of 1

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