



Ministry of Forests and Range Sunshine Coast Forest District

7077 Duncan Street
Powell River, BC
V8A 1W1

Douglas Bay (Gambier Island) Woodlot Evaluation

Sunshine Coast Forest District

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Chartwell Consultants Ltd.

210 - 275 Fell Avenue, North Vancouver, BC Canada V7P 3R5
Tel: (604) 980-5061 • Fax: (604) 986-0361 • Email: info@chartwell-consultants.com

Introduction:

Chartwell Consultants Ltd. was contracted by the Ministry of Forests and Range - Sunshine Coast Forest District to conduct a ground survey of areas in the northeast portion of Gambier Island with the intent of assessing the viability of establishing a Woodlot Licence near Douglas Bay. The primary objective of this project was to assess the timber types, as shown on the forest cover maps, for their accuracy. Additionally, the area was to be evaluated for any constraints to forest development and potential resource conflicts were to be identified. Chartwell Consultants Ltd. was to provide recommendations regarding the viability of the area as a Woodlot Licence, identifying logical boundaries and complete the Annual Allowable Cut calculation using Woodlot for Windows. Gambier Creek was also to be assessed for possible bridge locations with the purpose of providing access from the northernmost woodlot to the proposed barge loading point at Douglas Bay.

Methodology:

Timber types were checked by establishing plots in each polygon. In polygons between 5 and 10 hectares in size, one plot was established, while two plots were established in polygons exceeding 10 hectares. The plot locations were predetermined randomly and mapped. These plots were then located and established in the field using global positioning navigation. Where the predetermined plot locations resulted in what was considered by the field crew to be unrepresentative sampling of the timber type, the plot location was moved to better reflect the attributes of the timber type. Tree species, diameter, age and height were collected at each plot location as well as information pertinent to potential forest development. This included noting issues regarding the accessibility of the area, potential harvest system, the presence of forest health agents, etc.

To assess the existing roads and potential bridge crossings on Gambier Creek, aerial photographs were studied and 10 field days (in total) were spent between the two potential woodlots in the field exploring the existing and proposed access routes as depicted on the Gambier Woodlot Evaluation Map prepared by C.L. Anderson in 2006.

Assessments:

Access:

All existing roads/trails are only accessible by foot due to either significant windthrow or excessive water erosion. The road/trail locations indicated on the map (C.L. Anderson 2006) were main access routes with significant sections of corduroy construction and grades in excess of 25%. Previous harvest practices were not constrained by environmental concerns and the two road/trails that fork approximately 600 metres from the proposed barge loading site coincide with stream locations for portions of their length.

The main road/trail from Douglas Bay forks after crossing a creek approximately 600 metres from the bay. It is recommended that the crossing be moved further upstream due to the excessive bank erosion at the present location. Reconnecting to the existing road system did not appear to present an issue.

The east fork of the road/trail is essentially a S6 stream and generally unusable. The trail also starts climbing at 30% approximately 400 metres from the junction. The west fork will serve as a general location for a main access route. The portion that coincides with the creek (extensive corduroy construction) can be avoided by crossing the creek and switching back to gain elevation above the creek, then joining the original trail location further to the south. From the switchback location, a road can be constructed eastward to access the area reached by the east fork of the trail. The proposed route directly south from the termination of the east fork of the trail is not possible due to rock bluffs. Viability of the proposed routes to the southeast will require extensive exploration due to the broken nature of the terrain.

The west fork of the existing road/trail can be used as a viable route. Upon reaching a terrain saddle, north of the lake in Lot 5682, it wraps around a rocky outcrop and proceeds westward. The proposed route that would provide access to western portion of the woodlot from the termination of this road/trail is not possible due to rock bluffs. An alternate route was explored south of the proposed route, following the stream location that flows from the north end of the lake. A cursory exploration of this route indicates that it could be used to access much of the western portion but would involve construction in close proximity to the stream (likely fish bearing) and a short pitch of 15-20 % adverse grade. Extremely rocky terrain makes it unlikely that this route could be used to develop timber to the northeast as proposed. Connectivity to the northern woodlot via this route is possible but it would involve sustained adverse grades of 10% and short pitches of 15-20% when hauling out of Gambier Creek.

Rock bluffs and broken terrain allow limited road access to the area bounded by the stream and the Lot boundary, southwest of the lake in L5682. Road construction is unlikely beyond a point parallel with the south end of the lake. A 5 metre bridge would be required on the stream flowing out of the lake.

Development of timber in the northeast portion of the proposed woodlot will be by spurs branching from the west fork of the existing road/trail at lower elevations.

Archaeological Findings:

No items of archaeological significance were noted during the field assessment of the proposed Douglas Bay woodlot area. However, the relative close proximity to several First Nation bands (Squamish, Sechelt etc.) increases the archaeological potential for this area. Also, the nature of the terrain, the presence of water bodies and old growth timber types make it highly likely that these areas have had some First Nation traditional use. A reconnaissance level AIA (Archaeological Impact Assessment) is recommended.

Forest Health:

No major forest health concerns were noted during the field inspection of the proposed Douglas Bay woodlot area. Mistletoe is common to Western hemlock and small isolated patches of root rot are present in the Douglas fir / hemlock stands. Knockdown of hemlock regeneration in areas of increased mistletoe activity and the planting of resistant species such as Western Red cedar in root rot patch areas should assist in mitigating detrimental forest health agents.

There is a substantial amount of Hemlock windthrow (>1ha.) approximately 500 metres southwest of Douglas Bay. It appears to be the result of a single windthrow event.

Terrain:

The terrain in the proposed Douglas Bay woodlot area is varied and broken. Rock bluffs are a dominant feature in much of the area, as are rocky knolls and outcrops. Rock bluffs prevent conventional development in the southernmost sections of the proposed woodlot area. Areas previously harvested by means of access routes with extreme grades or located up streams may no longer be accessible without major rock cuts.

Terrain stability field assessments (TSFA's) will need to be conducted in those areas with sustained slopes >65%. This is of particular concern in those areas that feed into the community watershed as water quality may be impacted.

Riparian Classification:

Gambier Lake and Gambier Creek as well as its tributaries are situated in a community watershed. In accordance with Woodlot License Planning and Practices Regulation (WLPPR Section 36(2)) regarding streams in community watersheds, all streams in the Gambier Watershed will default to a S2, S3 or S4 classification (based on their width). It is proposed that the east boundary of the watershed be adjusted to include the creek immediately to the east of the present boundary. This stream is a tributary of Gambier Creek with the confluence approximately 200 metres from Douglas Bay. Gambier Lake is classified as L1 and fish bearing (MOE – FISS). There is an effective fish barrier (waterfall) to salt water fish located on Gambier Creek approximately 50 metres from Douglas Bay. Gambier Creek is classified as an S2 for most of its length. Maintaining the appropriate reserves on all creeks may prove problematic where existing roads are already located within reserves and constrained by the terrain.

The lake situated in Lot 5682 is classified as L2 and is assumed to be fish bearing. The stream that flows from its northern end defaults to an S3 classification. Construction of a primary access route is proposed within 20 metres of this stream with the possibility of excavated material escaping into the channel. Fish trapping or electro-fishing is recommended to determine fish presence. All other streams that are outside of the community watershed and have slopes greater than 25% have been defaulted by gradient to be at least S6's.

Any water intake locations should be firmly established and any harvest plans should incorporate appropriate measures to safeguard the purity of the water supply. It is anticipated that this will have an adverse effect on the timber supply area. Road construction through or in proximity to these creeks will be a concern.

Other Assessments:

A watershed assessment (if not done already) is recommended on the community watershed located inside both of the proposed woodlots. The community watershed occurs over a significant proportion

of the total harvestable land base of these woodlots (Douglas Bay – 231.7 ha). A management plan detailing the proposed maximum harvestable area (at any given time) and any other watershed concerns should be produced in order to properly manage this community watershed.

Further research detailing the status of the existing recreation trails located inside both of the proposed woodlots on Gambier Island should be conducted in order to establish a management strategy for multiple resource use. These trails pose concerns for timber management, particularly regarding proposed road locations and major access routes. In some instances, the recreation trails (previously used as haul roads) have been proposed to be reactivated as access routes for both of the proposed woodlots.

Visual Impact Assessments (VIA) will be needed, particularly on the South facing aspect (towards Vancouver). Visual resource management is not anticipated to impact harvest volume as woodlot management generally results in small, non-obtrusive harvest patch size.

There are small portions of the woodlot that have been slated as draft Old Growth Management Area (OGMA). The approved landscape unit plan should be consulted prior to designation of fixed woodlot boundaries in case the draft OGMA areas are set to become legally designated before the woodlot license plan is approved (See attached 1:10000 map for location).

Annual Allowable Cut (AAC) Calculations & Assumptions:

Two separate AAC's were determined for the Douglas Bay woodlot using the Woodlot for Windows program. The first run was designed to use the provided Ministry of Forest and Range data. The calculated AAC for this scenario was **3,065 m³/year**.

The second run used the information that was compiled in the field by Chartwell Consultants Ltd. Updated crown closures, tree heights and ages were inserted into each polygon in order to update site indexes and to provide improved volume estimates. The calculated AAC for this scenario was **4,063 m³/year**.

* It should be noted that the site indexes were significantly improved for the field-based, second scenario, thus accounting for the marked increase in AAC volume for the woodlot.

Several assumptions, netdowns and constraints were added to calculate the AAC for the Douglas Bay woodlot. To begin, it was assumed that only harvestable polygons were to be added to the AAC analysis. The polygons found to consist mainly of rock amounted to approximately 5.1ha of the Douglas Bay woodlot and were, therefore, excluded from the AAC analysis.

All assumptions pertaining to Appendix A of the contract specifications (# TE DSC 08 001) have been followed for both the VDYP and TIPSYS analysis. The following assumptions have been modified to better model the AAC forecast for the Douglas Bay woodlot.

As specifically provided by the Ministry of Forests and Range, 8% of the total area was netdown for Wildlife Tree Patch (WTP) inclusion and a further 5% of the area was netdown for road construction.

After consultation with the Ministry of Forests authority, another 3% of the woodlot area was netdown for community watershed purposes. This is due to the streams in this area being defaulted to fish bearing status (increasing non-harvestable riparian reserve zone area) and to the inability of the licensee to harvest large areas in the watershed at any given time (generally constrained to having only ~20% of watershed area being harvested at any given time). Overall, 16% of the total area was netdown for the Douglas Bay woodlot.

Several harvest parameters were set in order to facilitate the AAC calculation, particularly in the managed TIPSYS stands. The planning horizon was set to 250 years, the minimum harvest age was set at 50 years, the minimum harvestable volume was set to 350m³/ha and the minimum utilization rate was set at 12.5cm (rounded to 13cm in Woodlot for Windows).

A detailed analysis on a polygon-by-polygon basis has been included at the end of this report.

Gambier Creek Bridge Locations:

Development of the northern woodlot is dependent on access through the southern woodlot to the proposed barge loadout on Douglas Bay via a bridge on Gambier Creek. Three bridge locations were considered, the most viable of which is situated at the lowest elevation of the three sites Site #1). The other two sites (Site #2 and Site #3), located above the steep pitch (25%) on the trail north of Gambier Creek were considered as a potential means of providing access to the western portion of the southern woodlot. Site #3 was considered to be the better of these two options.

Site 1

This is the site of an old skid trail crossing with connectivity to the existing road/trail north of Gambier Creek and a trail heading upstream on the south side. The trail heading upstream climbs out of the creek but quickly reaches excessive grades and is unusable. West of the proposed bridge site an old trail branches from the main trail in a steep switchback and connects to a more recent skid trail that runs northward to connect with built road in the private lot. This may be the only option for accessing much of the northern woodlot.

It is estimated that a 12 metre bridge will be required. On the south side of the creek, the proposed route proceeds northeast and requires approximately 80 metres of both partial and full bench cuts through a mixture of fractured and solid rock at a 10% grade. Here it is expected that 100% of the material will have to be endhailed due to proximity to the creek. Once out of the creek, the road connects to an old skid trail branching from the west fork of the existing road/trail in the southern woodlot.

Site 2

This site has a rock outcrop where the creek bends and narrows, affording a solid approach from the north side. Rip-rap would be required to armor the approach in the bend of the creek. The south side is approximately 2 metres lower in elevation requiring construction of a substantial abutment. A 12 metre bridge is required. This option offers no connectivity at acceptable adverse grades to a route from Douglas Bay but would provide good access to the western portion of the southern woodlot. An approach to this bridge from the west would be difficult due to the angle at which it would be constructed (approach from the northeast).

Site 3

This site has a solid approach from the north but would require approximately 110 metres of ballast and additional culverts on the south side. A 12 metre bridge would be required. This bridge location will afford accessibility to a route from Douglas Bay. It would also provide a means of avoiding hauling timber down a sustained 25% pitch on the access route from Douglas Bay.

Recommendations:

The proposed Douglas Bay woodlot, on the whole, should be a viable woodlot license. The estimated harvestable volume of ~4000 m³/year using the updated woodlot information may be adjusted to improve the yearly harvestable volume even further given a more detailed woodlot valuation (e.g. blanket cruising). The second point to be made is the fact that the proposed Eakins Point woodlot viability hinges on whether or not the Douglas Bay woodlot is viable. Without access through the Douglas Bay woodlot and to the proposed barge loadout, the Eakins Point woodlot, in all probability, would fail to exist.

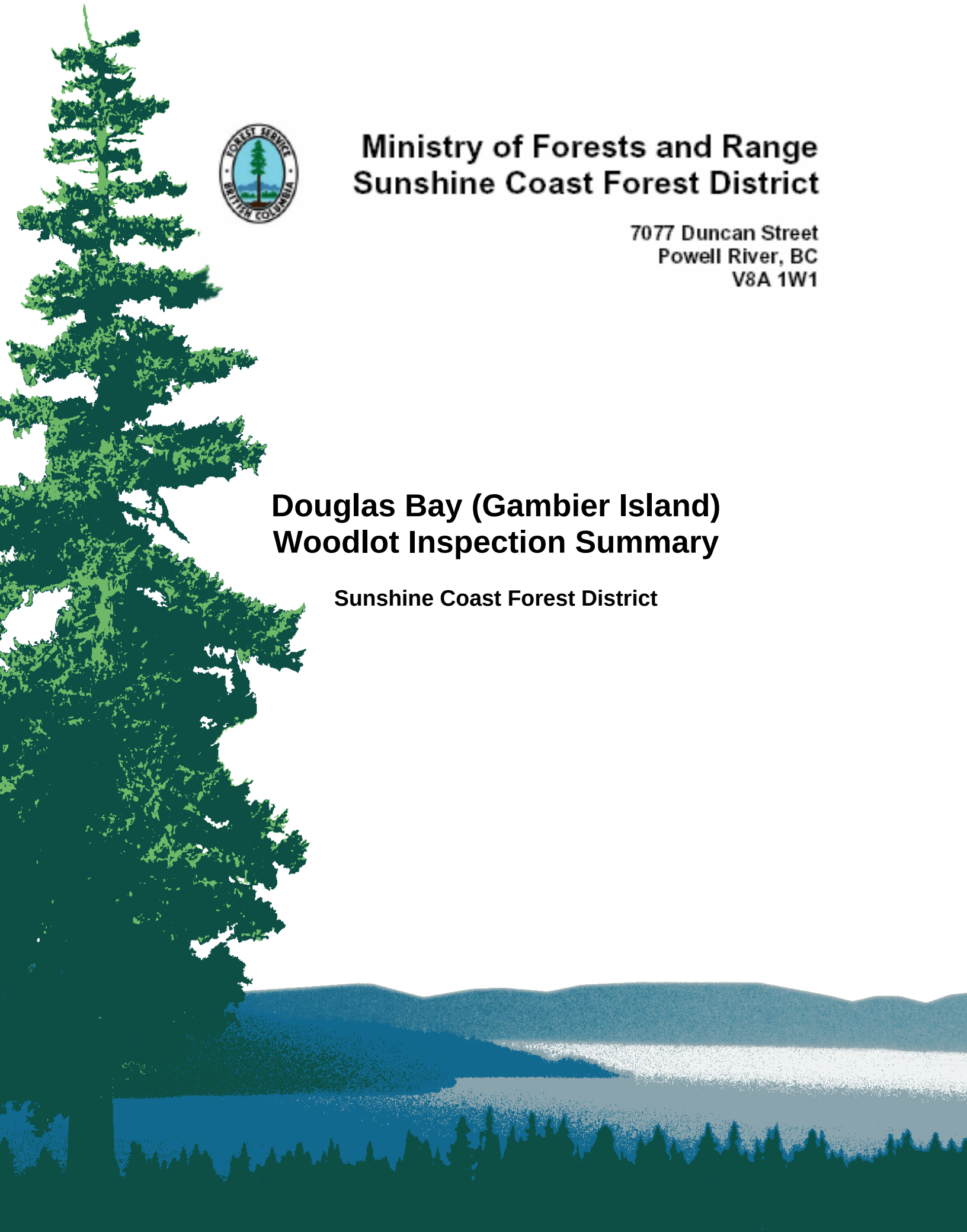


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Douglas Bay (Gambier Island) Woodlot Inspection Summary

Sunshine Coast Forest District



Woodlot Licence Inspection Summary Report

Woodlot Licence Area
Geographic Location: Gambier Island – Douglas Bay

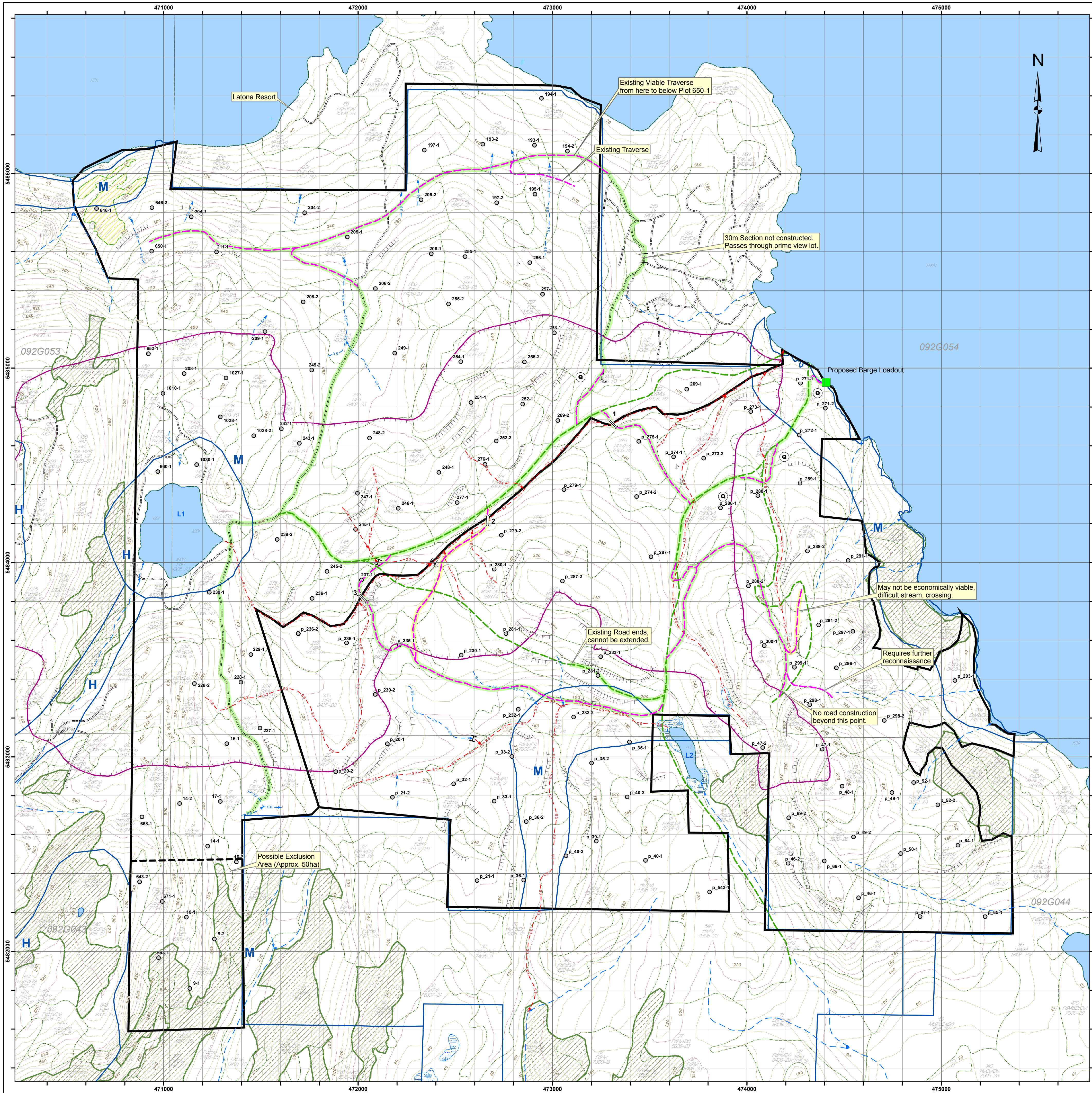
Polygon Information							Logging Method			Slope		Terrain				Under Brush				Forest Health	Comments
P #	Species Composition by %	Ht	Age	CC	Merch area	Vol. m ³ /ha	Ground	O/H	Other	Range	Avg	Even	Rolling	Gulled	Broken	L	M	H	V H	Agent Code	
542	Hw75, Fd15, Cw10	22	60	40	3.5	350	X			5 - 20	10	X				X					Some exposed rock
40	Hw85, Fd15	37	60	40	36.7	700	X			5 - 65	30	X				X					Very productive, heavy to Hw, minimal Cw scattered
35	Hw60, Fd30, (Pl,Cw)10	23	55	45	7.2	300			X	0 - 90	40				X	X					Lots of exposed rock with pockets of soil between, very broken undulating terrain, standing water is common – bedrock near surface. Some scattered Fd vets. Minor windthrow. Operationally challenging, poor volume and piece size for heli.
41	Fd60, Pl40	20	250+	10	0	75			X	0 – 90+	60				X	X					Inoperable rock. Dry small Fd/Pl.
272	Hw45, Cw35, Dr20	40	100	30	4.0	650	X			10 - 20	15	X				X				Mistletoe	Easy ground based logging, large landing possibility. Minor mistletoe and conk in Hw. Cw very branchy.
288	Hw70, Cw20, Fd10	28	130	30	10.0	550	X	X	X	20 - 80	45		X		X	X				Mistletoe	Rocky benches with Fd on drier ridge tops. 60% of polygon is accessible for cable, rest is heli. Timber quality in heli areas is poor.
286	Cw65, Hw35	37	130	30	6.5	700		X		30 - 50	40				X	X				Mistletoe	Rocky broken ground – difficult but possible cable logging. Heavy mistletoe in Hw. Some Fd stumps @ eastern edge of polygon, but no Fd seen.
300	Fd70, Cw20, Hw10	36	120	45	4.0	800	X	X		20 - 50	35				X	X				Mistletoe	Rocky, very broken terrain with bluffs. Inprobable access to polygon, but if possible 50/50 ground based to cable logging. Minor mistletoe.
65	Dr45, Mb30, Cw20, Hw5	27	60	50	7.0	350	X	X		10 - 50	35	X		X		X					This polygon is an old skid trail that follows the creek straight up the hill @ 40+%. Skid trail is unuseable for todays standards.
59/294	Cw80, Mb10, Dr10	35	100	50	3.8	600		X		40 - 80	60	X				X					Old skid trail leaves beach @ south end of polygon, and switchbacks through this type. Cable a possibility if this skid trail is made accessible. Highly visible polygon if logged.
51	Fd95, Pl5	30	200	10	0.3	750			X	20 - 100	80				X	X					90% of this polygon is rock. Some Fd in seems, but quality is very poor for heli logging.
63	Fd90, Hw5, Mb5	40	70	70	2.8	600	X	X		20 - 60	50	X				X					Rocky/talus slope. Hoechuck at lower slope, mostly cable though. Good potential for a block if made accessible from outside of woodlot boundary.
293	Cw60, Fd40	38	80/250+	40	7.0	600		X	X	45 - 80	60	X			X	X					Rocky/talus broken ground with even terrain between rock outcropping. Cable would be possible if road access, but heli is the only realistic option. Some decent Cw. 50/50 vets to immature, some stumps scattered. Vets are heavily burned and scarred.

296	Fd75, Hw15, Cw10	35	80	40	3.8	500	X			5 - 50	15	X	X			X					Plot is located in higher volume area. Some exposed rock, but otherwise flat easy ground based area. Lots of Dr in old skid trail openings. Some Cw + Fd vets scattered.
52	Fd50, Hw40, Cw10	28	60	65	7.5	500	X	X		20 - 60	50				X	X					Lots of open rock and bluffs. Ground based possible on flatter areas – access dependant, majority would be cable. Some nice unsampled Cw on flatter areas @ bottom of type.
49	Hw45, Fd45, Cw10	25	50	20	4.0	400		X		5 - 50	20				X	X					Very rocky and open in parts. Timber is small and young in seams.
48	Fd70, Cw20, Hw10	35	180	40	3.2	800	X		X	5 - 90	55				X	X					Lots of rock and bluffs with nice timber in the seams only. Ground based logging on flat slopes if made accessible, otherwise heli.
50	Fd50, Cw30, Hw20	32	60/ 180	35	3.0	500	X			20 - 90	40				X	X					Very benchy with lots of exposed rock/bluffs. Some scattered Fd vets throughout.
64	Fd80, Cw20	38	200+	40	3.0	900	X		X	5 - 95	40				X	X					Lots of open rock and bluffs. Some nice Fd + Cw vets in seams. Very wolfy Fd in rocky openings. Some smaller Hw mixed in.
298	Fd80, Hw20	30	50/ 200+	40	10	450	X	X	X	10 - 100	55	X			X	X					Some very steep/exposed rocky areas. The two plots are in very different timber types.
67	Fd70, Cw20, Hw10	35	60	50	5.0	600	X	X		5 - 60	40				X	X					Some exposed rock. Very broken ground. Possible ground based in seams between rock and cable elsewhere, if made accessible by road.
46	Fd60, Hw30, Cw10	40	180/ 250+	40	4.0	600			X	5 - 85	60				X	X					Very rocky and very steep. Extremely limited harvestable area. Nice small pockets of old growth in seams between rocks. Heli mostly.
69	Hw60, Fd30, Cw10	25	60	40	4.5	500	X	X		5 - 80	60				X	X					Minor rock outcrops and bluffs. Small/poor timber quality. Ground based on flat areas and cable on steeper sections.
70	Fd45, Cw40, HW15	45	100	60	2.0	850	X			10 - 40	20	X				X					Some large rocks/talus. Hoechuck is access dependant. Very nice timber overall. Has been cherry picked.
47	Fd50, Cw30, Hw20	35	140	40	7.0	850	X		X	10 - 100	50				X	X				Mistletoe	Very steep in a lot of areas. Some flat fingers of wood. Lots of large talus below bluffs. Significant mistletoe. 25% of area possible for ground based. Heli for inaccessible and steep terrain.
303	Hw70, Dr25, Fd5	25	50	60	3.0	400	X			20 - 45	30	X				X				Mistletoe	Mostly hoechuck. Minor mistletoe. S6 through polygon. Minor Fd scattered.
299	Hw70, Dr30	25	65	65	7.5	400	X			10 - 45	30	X				X					Old skid trail & associated Dr throughout. Young and small timber. S6 through polygon.
291	Cw60, Hw20, Dr10, Fd10	25	60	40	6.5	350	X	X		5 - 75	50	X				X				Mistletoe	Lots of steep exposed rock. Dr along old skid trail. Lots of dog hair. Some spots good for skidder. Not enough continuous merch for cable.
297	Fd80, Hw20	25	180	30	1.2	500			X	15 - 100	50				X	X					Rocky Fd type. Lots of steep open rock. Poor access, therefore heli only option. Highly visible polygon.
289	Fd70, Cw20, Hw10	29	160	35	4.0	500			X	20 - 100	60				X	X					Lots of steep rock. Poor quality timber in seams. Poor accessibility. Lower portions have higher volume of timber but mostly confined to ridge tops.

39	Fd50, Hw30, Cw20	27	250+	45	4.0	475			X	0 – 90+	40				X	X				Mistletoe	Broken rocky terrain. No road access. Marginal wood volume and quality, not good enough for heli.
269	Hw60, Cw20, Mb20	35	90	25	2.1	600	X	X		5 -70	45				X	X				Mistletoe	Timber type contains gullied S5 stream as well as rock outcrops that reduce the merch area by 50%, poor road options.
271	Fd85, Hw10, Cw5	32	100	45	5.5	700	X	X		20 - 80	45				X	X					Steep broken ground and rock reduce's the merch area considerably and limits road options. Good timber and volume in the northern half of the polygon. Visual constraints must be considered as well.
273	Hw90, Cw10	42	85	50	14.0	850	X			0 - 90	14	X					X				Hemlock with cedar vets, wetter sites show susceptibility to windthrow. Good block location, consider VIA for the northern section of the polygon.
274	Hw40, Cw30, Fd30	35	90/180	30	9.0	550	X	X		0-60	40	X	X					X		Mistletoe	Eastern half of the timber type is Hw with Cw Fd vets, heavy underbrush ,with a small mature stand in the north eastern most part of the type. All hoechuck and windthrow present throughout. The western half of the type is Fd leading Hw Cw. Hoechuck and grapple, there is little to no blow down.
275	Hw80, Cw20, (Fd)	28	110	55	5.0	550	X	X		15 - 70	45				X			X		Mistletoe	Immature Hw with Cw Fd vets, mostly hoechuck with grapple sections.
287	Fd70, Hw20, Cw10	28	70	60	35.0	450	X	X		0 - 150	55				X	X				Mistletoe	Steep rocky ground, poor road options, and visual constraints west of S5 stream . East of S5 is ground based area with higher Cw %.
230	Fd50, Hw40, Cw10	33	60	70	40.0	750	X	X		20 - 150	35				X	X				Mistletoe	Mostly hoechuck with grapple sections. Broken ground, bluffs and streams make for limited road options and inefficient harvesting in sections.
279	Hw50, Fd40, Cw10	30	50-120	40	12.0	525		X		0-150	55				X	X					Upper sections very broken and rocky, lower sections along creek have a higher likely hood of harvesting opportunities. Several endemic patches of windthrow due to location in valley. Timber generally immature with vets
235	Hw80Fd2	31	65	85	4.0	450		X		0-150	35		X		X	X				Mistletoe	Very irregular terrain with many rock knobs, section in the middle of the patch has a higher component of old growth. The older timber has been fairly open grown and is limby in the second log. This is due to the wetter ground in these areas.
282	N/P Rock																				
233	Fd (Hw,Cw)	23	72	30	1.0	450		X		30-150	80				X						Type is mainly rock and rock bluffs. Some small patches that may be accessible to harvesting. Scattered vets throughout the type. Small component of Hw and Cw
280	Cw50Hw30Fd20	30	90	40	4.0	800	X	X		5-150	40		X		X	X				Mistle toe Buttrot in Cw vets	Some very large timber in places along the small S6 in the type. Upper reaches of the type are rocky and broken and will be difficult to harvest. If a road is able to get into the small bowl harvesting the large timber along the stream will be quite easy. Wind through should not be a problem due to the surrounding terrain.

232	Fd5Hw30Cw20	35	165	50	7.0	800	X	X		0-80	35		X				X			Mistletoe Minor conk	Nice timber for harvesting lots of S/L and peeler fir. Good component of Old Cw in sections. Windthrow may be an issue as there is a small patch already present.
32	Fd70Hw20Cw10	32	75-170	45	4.5	650	X	X		0-150	55	X			X		X				Upper sections fairly inaccessible due to very broken and rocky terrain. Northern sections may provide more harvesting opportunities.
237	Fd60Hw30Cw10	37	70	45	2.5	650	X			0-30	10	X					X			Minor conk	Timber is generally open grown with lots of limbs into the first logs. May be difficult to harvest due to adjacent streams that parallel the type. Soils are fairly wet and there are several open patches
281	Hw70Fd20Cw10	35	75	70	20.0	750	X	X		0-90	45				X	X				Mistletoe	Several areas that have harvesting opportunities. Nice component of S/L Hw and Fd. Patches of Cw vets in some areas. Type in an area between two rock bluffs may be difficult to get a road into.
236	Hw60Fd40	35	75	60	12.0	625	X	X		0-90	45		X		X	X					Fd is more prevalent on the drier rockier sites. Windthrow may be a problem due to the type topographic position as well as the even age of the stand. Lots of nice Hw and Fd S/L
20	Hw60Fd30Cw10	34	66	60	12.0	700	X	X		0-150	45		X		X		M			Minor root rot Mistletoe	Good potential for a cut block with lots of nice S/L and a component of Fd Peelers. Patchy Cw in wetter areas. Type is broken by several large bluffs
36	Fd50Hw40Cw10	26	67	65	3.0	500		X		30-200	75				X	X				Minor mistle toe	Very rocky steep type very limited harvesting potential. Logs are mainly peewee sized with a small component of vets. There is also a component of deciduous in the type.
21	Fd60Hw40 (Cw)	33	77	65	16.0	650	X	X		0-60	35		X		X		X				Good cutblock location with generally gentle slopes. Minor forest health concerns. Lots of nice Gang Fd and Hw. Minor component of Cw in the wetter areas. Southern component of the type may be difficult to access unless you go outside the woodlot.
33	Hw55Fd45	27	70	60	12.0	450	X			0-100	30				X	X				Mistle toe Minor root rot	Small gang and peewee Hw and Fd. Scattered vets on rock outcrops have been fire scared. Possible block location but wood quality is fairly poor.

Polygon Information: P# = Polygon Number, CC = Crown Closure, Vol m3/ha = Estimate based on plots and visual assessment
 Logging Method: Ground = Skidder, Hoe chucking, Horse, etc. O/H = Highlead, or Grapple Other = Helicopter, Skyline, etc.
 Under Brush: L = Low, M = Moderate, H = High, VH = Very High



 Ministry of Forests and Range
Sunshine Coast Forest District

Douglas Bay - Eakins Point (Gambier Island) Woodlot Evaluation Map

- Plot Locations
 - Proposed Barge Location
 - ⌈ Bridge
 - ⊙ Quarry
 - ⌈ Reach Break
 - ⌈ Windthrow
 - 1:20,000 BCGS Grid
 - ▭ Woodlot Boundary
 - ▭ Rec Inventory
 - ▭ VRI Polygons
 - ▨ Previous Harvest (NSR)
 - ▨ Draft OGMA
 - ▭ Community Watershed
 - ⌈ Rock Bluffs
 - ▬ Proposed Roads
 - ▬ Existing Roads
 - ▬ Trails
 - ▬ Possible Major Access Routes
 - ▬ Optional Access Routes
- ### Stream Class
- ▬ Unclassified Stream
 - ▬ S2
 - ▬ S3
 - ▬ S4
 - ▬ S5
 - ▬ S6
 - ▭ Lake / Ocean
 - ▭ Wetlands