	ID	GENERAL HCV MANAGEMENT OBJECTIVE	SPECIFIC HCV MANAGEMENT OBJECTIVE	MANAGEMENT TARGETS	MANAGEMENT STRATEGIES		
HCV					AREAS	PRESCRIPTIONS	MONITORING ACTIVITIES AND ACHIEVEMENT 2019
1.1	64,953.74 ha Consisting of Ulu Kalumpang FR, Mt Wullersdorf FR, Kalumpang VJR 107 (C, D & E) FR and Madai Baturong VJR 107 F (Binuang) FR.	The whole project site remained protected from serious environmental or ecological threat.	Encroachment into the Project site is controlled and reduced.  Total hectarage of restoration area of degraded forest is increased.  *Indicators: 1. Number of cases of encroachment/ illegal felling/ illegal cultivation's/ illegal occupations/ forest fire/ poaching  3. Total hectarage of restoration area.	No new encroachment cases within the identified existing encroached area surveyed.  Total percentage of restored area of the existing encroached area increased.	Whole area	<ul> <li>No conversion of forests is permitted.</li> <li>No encroachment.</li> <li>No poaching.</li> <li>No illegal felling</li> <li>No illegal cultivation</li> <li>No illegal occupations</li> <li>Conduct periodic patrolling and surveillance in accessible HCV areas.</li> <li>Demarcation of main Forest Reserves boundary especially conflicted sites shall be completed.</li> <li>Gazette map of all FR within UKW shall be updated</li> <li>No open burning within the UKW SFM as well as right nearby/ boundary of UKW SFM</li> <li>Signboards to prohibit any illegal activities to be erected and visibly maintained at the strategic location as well as all identified HCV area.</li> </ul>	200 DAYS OF GROUND PATROLLING — Boundary inspections within all FR     CONDUCTED 1 TIMES AERIAL SURVEILLANCE     INSTALLATIONS OF FR AND PROJECT SIGNBOARDS     MAINTENANCE OF PSP PLOTS     JOINT OPERATION WITH STAKEHOLDERS     RE-BRUSHING OF BAUNDARY 7,000 METERS     NO NEW ENCROACHEMENT DETECTED     NO OPEN BURNING ACTIVITIES DETECTED     REHABILITATION PLANTING AND MAINTENANCE DONE — 90 HECTARES     SILVICULTURE TREATMENT — 529 HECTARES     TRAINING OF STAFFS — FIRE DRILL TRAINING, FSC REFRESH COURSE, MAPPING Q-GIS
1.2	[Listed] Flora 26 species from 7 families of plants are rare, endangered or threatened plant species	Biodiversity in UKW is maintained or enhanced	*Indicators:  1. Number of changes in tree structure and species assemblages	No deterioration detected in diversity and/or abundance of identified flora in UKW.  No cases of illegal felling of rare, threatened and endangered trees within UKW SFM	Whole area     14 permanent sample plots	<ul> <li>Conduct periodic patrolling and surveillance in designated HCV areas.</li> <li>No encroachment.</li> <li>No illegal felling and collecting trees species</li> <li>Establish a long-term biodiversity monitoring system for critical forest ecosystem, flora and fauna.</li> <li>Marked on the ground and on the maps of high conservation value plant species discover in PSP Plots and nature trails in UKW SFM Project area.</li> <li>Field staff is required to attend training courses on plants to further enhance their botanical knowledge on species that are currently listed in the threatened, endemic and forestry prohibited list to ensure they do not harvest or</li> </ul>	NO NEW ENCROACHEMENT DETECTED  NO OPEN BURNING ACTIVITIES DETECTED  REHABILITATION PLANTING AND MAINTENANCE DONE – 90 HECTARES  MAINTENANCE OF PSP PLOT FOR FLORA DONE  MARKING OF PSP PLOTS

HCV	ID	GENERAL HCV MANAGEMENT OBJECTIVE	SPECIFIC HCV MANAGEMENT OBJECTIVE	MANAGEMENT TARGETS	MANAGEMENT STRATEGIES		
					AREAS	PRESCRIPTIONS	MONITORING ACTIVITIES AND ACHIEVEMENT 2019
	[Listed] Fauna 11 species of	Biodiversity in UKW is	Fauna diversity in UKW is	No deterioration detected in	Whole area	damage and also for monitoring purposes.  Update current biodiversity conservation status to management team of the upgrade or downgrading of threat status locally and globally.  Conduct periodic patrolling and surveillance in designated HCV	NO NEW ENCROACHEMENT DETECTED     NO OPEN BURNING ACTIVITIES DETECTED
1.2	mammals, 4 species of birds	maintained or enhanced	*Indicators: 1. Number of poaching cases (arrests and prosecution) 2. Species composition presence and absence	presence and absence of identified fauna in UKW.  No cases of poaching occurred within UKW SFM Project		<ul> <li>Establish a long term biodiversity monitoring system for critical forest ecosystem, flora and fauna.</li> <li>Migratory pathway of wildlife on logging roads, along streams or wildlife trails in the forest should be marked on the map and kept to ensure wildlife are able to use it for movement within and between forest reserves.</li> <li>Field staff is required to attend training courses on wildlife to further enhance their wildlife knowledge on species that are currently listed in the threatened, endemic and forestry prohibited list to ensure they do not harvest or damage and also for monitoring purposes.</li> <li>Update current biodiversity conservation status to management team of the upgrade or downgrading of threat status locally and</li> </ul>	WILDLIFE MONITORING DONE, REPORT BY QUARTERLY  THREE METHODOLOGY OF WILDLIFE MONITORING: OPPORTUNISTIC SIGHTINGS, CAMERA TRAPPING AND LINE TRANSECT/ RECCE WALK  MAMMALS: There are four species of wildlife found inside the Project area in 2019, that are classified under Schedule 1 (Section2) Part I (Section 25(1)) Totally Protected Animals of the Sabah Wildlife Conservation Enactment 1997. These wildlife species are the Sunda Pangolin, Bornean Gibbon, Bornean Pygmy Elephant, and Sun Bear. Furthermore, the Sunda Pangolin is classified as Critically Endangered by the IUCN Red List, while the Bornean Pygmy Elephant and the Bornean Gibbon is classified as Endangered species, and Sun Bear is classified as Vulnerable. This shows that the Ulu Kalumpang-Wullersdorf Project Area have a crucial function as the habitat of these critically endangered and totally protected wildlife.  •
1.3	[Listed] Flora 98 species endemics to Borneo- 6 of these endemic to Sabah.	Biodiversity in UKW is maintained or enhanced	Flora diversity in UKW is maintained  *Indicators: 1. Number of changes in tree structure and species assemblages	No deterioration detected in in presence and absence of identified flora in UKW.	Similar to HCV 1.2 (Flora)	globally. Similar to HCV 1.2 (Flora)	Similar to HCV 1.2 (Flora)
	[Listed] Fauna 5 species of mammals, 21 species of birds	Biodiversity in UKW is maintained or enhanced	Fauna diversity in UKW is maintained	No deterioration detected in in presence and absence of	Similar to HCV 1.2 (Fauna)	Similar to HCV 1.2 (Fauna)	Similar to HCV 1.2 (Fauna)

	ID	GENERAL HCV MANAGEMENT	SPECIFIC HCV MANAGEMENT	MANAGEMENT	MANAGEMENT STRATEGIES		MONITORING ACTIVITIES AND ACHIEVEMENT 2019
HCV					AREAS PRESCRIPTIONS		
		OBJECTIVE	OBJECTIVE	TARGETS	ANLAS	PRESCRIPTIONS	
	and 8 species of		*Indicators:	identified fauna in			
	insects are		1. Number of	UKW.			
	endemic		poaching /				
			Species				
			composition				
			2. Total number				
			of animal				
			poached /				
			Species				
			composition				
	The limestone	Biodiversity of	The limestone	No illegal entry	Madai Baturong VJR	Conduct periodic patrolling and	200 DAYS OF GROUND PATROLLING – Boundary inspections within all FR
	Karst in Madai	Madai Baturong	Karst in Madai	and	107F (Binuang)	surveillance in designated HCV	CONDUCTED 1 TIMES AERIAL SURVEILLANCE
	Baturong VJR	VJR 107F	Baturong VJR	encroachment		areas.	INSTALLATIONS OF FR AND PROJECT SIGNBOARDS
	107F (Binuang) -	(Binuang)	107F is	within the area		Any salt licks and potential	MAINTENANCE OF PSP PLOTS
	nesting site for swiftlet, bats and	Baturong cave is maintained or	maintained	Habitat function		nesting sites found within NGR	JOINT OPERATION WITH STAKEHOLDERS
1.4	other troglofauna.	enhanced	*Indicators:	is maintained		area in the future, demarcation of HCV Boundaries on the	RE-BRUSHING OF BAUNDARY 7,000 METERS
1	other trogiolaulia.	Ciliancea	1. Number of	13 manitanieu		ground and installing clear	NO NEW ENCROACHEMENT DETECTED  NO OPEN PURPLES ASTROTER
		Habitat function	illegal entry			signage along existing road,	NO OPEN BURNING ACTIVITIES DETECTED  PELABULATION BY ANTING AND MAINTENANCE BONE OF USE TABLE.
		is maintained	l megan entary			foot trails and navigable	REHABILITATION PLANTING AND MAINTENANCE DONE – 90 HECTARES  SUN WIGHT TURN TREATMENT. 520 MESTARES.
			2. Habitat			rivers/stream indicating critical	SILVICULTURE TREATMENT – 529 HECTARES     TRAINING OF STAFFS
			function			values.	TRAINING OF STAFFS — FIRE DRILL TRAINING, FSC REFRESH COURSE, MAPPING Q-GIS
	Ulu Kalumpang, Mt. Wullersdorf	Ulu Kalumpang, Mt. Wullersdorf	Connectivity of	No new forest	Ulu Kalumpang, Mt.	Conduct periodic patrolling and	200 DAYS OF GROUND PATROLLING – Boundary inspections within all FR
	and Madai	and Madai	the Forest Reserves is	fragmentation.	Wullersdorf and Madai Baturong	surveillance in designated HCV areas.	CONDUCTED 1 TIMES AERIAL SURVEILLANCE     INSTALLATIONS OF FRANK PROJECT SIGNINGARDS
	Baturong	Baturong	maintained.	Total percentage	(Binuang)	Establish a long term	INSTALLATIONS OF FR AND PROJECT SIGNBOARDS     MAINTENANCE OF PSP PLOTS
	(Binuang) form a	(Binuang)		of restored area	(56)	biodiversity monitoring system	JOINT OPERATION WITH STAKEHOLDERS
	continous	project site	The functions	of the existing		for critical forest ecosystem,	RE-BRUSHING OF BAUNDARY 7,000 METERS
	forested	remained	of the Forest	encroached area		flora and fauna.	NO NEW ENCROACHEMENT DETECTED
2	landscape to	protected from	Reserves as a	increased.		Migratory pathway of wildlife	NO OPEN BURNING ACTIVITIES DETECTED
	support high	serious	large forest			on logging roads, along streams	REHABILITATION PLANTING AND MAINTENANCE DONE – 90 HECTARES
	conservation	environmental	landscape is			or wildlife trails in the forest	SILVICULTURE TREATMENT – 529 HECTARES
	value.	or ecological	maintained			should be marked on the map	TRAINING OF STAFFS – FIRE DRILL TRAINING, FSC REFRESH COURSE, MAPPING Q-GIS
		threat.				and kept to ensure wildlife are	STAKEHOLDERS CONSULTATIONS.
						able to use it for movement within and between forest	MAINTENANCE OF FOREST CHECKING STATIONS
						reserves.	RECORD OF ENTRY AT MAIN FOREST CHECKING STATIONS – FCS SG MANTRI AND FCS WULLERSDORF
	The forested area	Ecosystem and	The identified	No encroachment	Whole area	Conduct periodic patrolling and	200 DAYS OF GROUND PATROLLING – Boundary inspections within all FR
	below 200. a.s.l of	rich biodiversity	forested area	and forest		surveillance in designated HCV	CONDUCTED 1 TIMES AERIAL SURVEILLANCE
	seasonal	in UKW SFM	below 200. a.s.l	clearing into		areas.	INSTALLATIONS OF FR AND PROJECT SIGNBOARDS
	freshwater	which is rich in	of seasonal	HCV3 identified		Establish a long term	MAINTENANCE OF PSP PLOTS
	swamp and mixed	significant	freshwater	area		biodiversity monitoring system	JOINT OPERATION WITH STAKEHOLDERS
	dipterocarp,	diversity of	swamp and	No dotorioration		for critical forest ecosystem,	RE-BRUSHING OF BAUNDARY 7,000 METERS
3	including association of	ecosystem are maintained and	mixed dipterocarp,	No deterioration detected in in		flora and fauna.	NO NEW ENCROACHEMENT DETECTED
	limestone	enhanced.	including	presence and			NO OPEN BURNING ACTIVITIES DETECTED
	vegetation and		association of	absence of			REHABILITATION PLANTING AND MAINTENANCE DONE – 90 HECTARES     SUMMENTATION FOR ATMENT
	kerangas forest		limestone	identified flora			SILVICULTURE TREATMENT – 529 HECTARES     TRAINING OF STAFFS - FIRE DRILL TRAINING OF SECRET SELECTIONS - MARRIAGO OF STAFFS - FIRE DRILL TRAINING OF SECRET SELECTIONS - MARRIAGO OF SEC
	with the mixed		vegetation and	and fauna in			TRAINING OF STAFFS — FIRE DRILL TRAINING, FSC REFRESH COURSE, MAPPING Q-GIS     STAKEHOLDERS CONSULTATIONS.
	dipterocarp forest		kerangas forest	UKW.			STAKEHOLDERS CONSULTATIONS.      MAINTENANCE OF FOREST CHECKING STATIONS
			with the mixed				RECORD OF ENTRY AT MAIN FOREST CHECKING STATIONS — FCS SG MANTRI AND FCS WULLERSDORF
		l	i	1	l	1	- RECORD OF LIGHTLY AT MINING ORDER CHECKING STATIONS - 1 CS 30 MINISTRI AND 1 CS WOLLLISDORF

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HCV					AREAS	PRESCRIPTIONS	MONITORING ACTIVITIES AND ACHIEVEMENT 2019
			dipterocarp forest quality maintained				
4.2	All areas with slopes >25° and 30 m riparian buffer zone	Areas with slopes >25° and river or streams banks are maintain to prevent soil erosion	Maintain the Areas with slopes >25° and riparian reserves to prevent soil erosion.	No encroachment, forest fire, poaching, illegal felling, illegal cultivation, and illegal occupation activities which are might contribute to soil erosion.	<ul><li>Slopes &gt;25°</li><li>30m riparian zone</li></ul>	Conduct periodic patrolling and surveillance in designated HCV areas.	<ul> <li>200 DAYS OF GROUND PATROLLING – Boundary inspections within all FR</li> <li>CONDUCTED 2 TIMES AERIAL SURVEILLANCE – AUGUST AND NOVEMBER 2020</li> <li>INSTALLATIONS OF DR AND PROJECT SIGNBOARDS</li> <li>MAINTENANCE OF PSP PLOTS</li> <li>JOINT OPERATION WITH WILDLIFE DEPARTMENT (TAWAU), SABAH PARKS, UNIT TASKFORCE WILAYAH TAWAU/PROTECT TEAM SFD, AND WWF MALAYSIA (SABAH)</li> <li>TWO ARRESTS WERE MADE FOR ILLEGAL POACHING ACTIVITIES</li> <li>RE-BRUSHING OF BAUNDARY 10,000 METERS</li> <li>NO NEW ENCROACHEMENT DETECTED</li> <li>NO OPEN BURNING ACTIVITIES DETECTED</li> <li>WATER QUALITY ASSESSMENET DONE IN DECEMBER 2020</li> <li>REHABILITATION PLANTING AND MAINTENANCE DONE – 60 HECTARES</li> <li>Consultations with community – Kg Balung Cocos, Tawau and Kg Airport Bt. 10 and smallholders.</li> <li>TRAINING OF STAFFS – FSC REFRESH COURSE, FIRE DRILL TRIAINING, SILVICULTURE TRAINING</li> <li>MAINTENANCE OF FOREST CHECKING STATIONS</li> <li>RECORD OF ENTRY AT MAIN FOREST CHECKING STATIONS – FCS SG MANTRI AND FCS WULLERSDORF</li> </ul>
4.3	100 m band of moderate ti high forest structure inside the project area that border local communities land and oil palm estate are categorised as HCV 4.3.	Barriers to destructive fire are maintained and enhance.	Maintain the buffer zone along neighbouring boundaries of local communities and oil palm plantations	No encroachment, fire, poaching, illegal felling, illegal cultivation, and illegal occupation activities which are might contribute to fire.  Natural Forest cover maintained.	100m band of buffer zone	<ul> <li>Conduct periodic patrolling and surveillance in designated HCV areas.</li> <li>The Forest Fire Management Plan has to be updated periodically.</li> <li>Identification of low vegetation structure that is susceptible to catch fire, i.e grassland and shrubs along the 50 m band inside the FMU boundaries is crucial.</li> <li>Forest restoration of indigenous tree species as part of the remedial action to increase forest structural diversity and mitigate any forest fire incidence spreading into the FMU core area, especially area dominated with lalang grassland and ferns.</li> </ul>	<ul> <li>200 DAYS OF GROUND PATROLLING – Boundary inspections within all FR</li> <li>CONDUCTED 2 TIMES AERIAL SURVEILLANCE – AUGUST AND NOVEMBER 2020</li> <li>INSTALLATIONS OF DR AND PROJECT SIGNBOARDS</li> <li>MAINTENANCE OF PSP PLOTS</li> <li>JOINT OPERATION WITH WILDLIFE DEPARTMENT (TAWAU), SABAH PARKS, UNIT TASKFORCE WILAYAH TAWAU/PROTECT TEAM SFD, AND WWF MALAYSIA (SABAH)</li> <li>TWO ARRESTS WERE MADE FOR ILLEGAL POACHING ACTIVITIES</li> <li>RE-BRUSHING OF BAUNDARY 10,000 METERS</li> <li>NO NEW ENCROACHEMENT DETECTED</li> <li>NO OPEN BURNING ACTIVITIES DETECTED</li> <li>WATER QUALITY ASSESSMENET DONE IN DECEMBER 2020</li> <li>REHABILITATION PLANTING AND MAINTENANCE DONE – 60 HECTARES</li> <li>Consultations with community – Kg Balung Cocos, Tawau and Kg Airport Bt. 10 and smallholders.</li> <li>TRAINING OF STAFFS – FSC REFRESH COURSE, FIRE DRILL TRIAINING, SILVICULTURE TRAINING</li> <li>MAINTENANCE OF FOREST CHECKING STATIONS</li> <li>RECORD OF ENTRY AT MAIN FOREST CHECKING STATIONS – FCS SG MANTRI AND FCS WULLERSDORF</li> </ul>



