

FSC Forest Management Audit

Public Summary Report

Audit Conducted By	Bureau Veritas Certification Holding SAS Tour Alto 4 Place des Saisons COURBEVOIE 92400 France https://certification.bureauveritas.com/wood-scheme-certification-documents-and-standards
Contact Person	Krzysztof Wypij
Report last updated on	18 April 2024
Certificate Holder	State of Maryland DNR - Forest Service 580 Taylor Ave Bldg E1 Annapolis MD 21401 USA https://dnr.maryland.gov/forests
Contact Person	Rob Feldt
Certified Forest Areas	State of Maryland
FSC certificate registration code	BV-FM/COC-016194
Certificate issue date	20 May 2024
Certificate expiry date	19 May 2029
Audit Sequence	Re-Evaluation

This forest has been certified by Bureau Veritas Certification Holding SAS as meeting the requirements of FSC national forest standard FSC-STD-USA 1.1.

Certificate Holder and Certification Body Details

Question	Inputs
Certificate Holder	
1.01 Certificate holder name *	State of Maryland DNR - Forest Service
1.02.1 Street Address *	580 Taylor Ave Bldg E1
1.02.2 Address Line 2	
1.02.3 City *	Annapolis
1.02.4 State or Province	MD
1.02.5 Postal Code	21401
1.03 Country *	USA
1.04 Contact person full name *	Rob Feldt
1.05 Email *	rob.feldt@maryland.gov
1.06 Telephone	1-410-836-4571
1.07 Website *	https://dnr.maryland.gov/forests/
Certificate Parameters	
1.08 FSC licence code *	FSC-C016194
1.09 Certificate code *	BV-FM/COC-016194
1.10 Former certificate code (if any)	SCS-FM/COC-00069P
1.11 Certificate type *	FM/COC
1.12 Group certificate *	No
1.13.1 Initial certification date *	2004-03-05
1.13.2 Most recent certification date *	2024-05-20
1.13.3 Certificate expiry date *	2029-05-19
1.14 Total number of MUs in the scope of certificate *	4
1.15 Total area certified *	88476,82615884 ha
1.16 Change of scope since previous audit *	Yes
1.16.1 Nature of scope change	The CH is now being treated as a multiple FMU entity. The acreage has increased due to the purchase or gifting of additional lands.
1.17 Ecosystem services (ES) in the scope *	No
1.25 Name and/or location of the certified forest area(s)	State of Maryland
Certification Body	
1.18 Certification body name *	Bureau Veritas Certification Holding SAS
1.19.1 Street Address *	Tour Alto 4 Place des Saisons
1.19.2 Address Line 2	
1.19.3 City *	COURBEVOIE
1.19.4 State	
1.19.5 Postal Code	92400
1.20 Country *	France
1.21 Contact person full name *	Krzysztof Wypij
1.22 Email *	krzysztof.wypij@bureauveritas.com
1.23 Telephone	+48 691 104 484
1.24 Website *	https://certification.bureauveritas.com/wood-scheme-certification-documents-and-standards

The evaluation process

Question	Inputs
Audit Parameters	
2.01 Audit type *	Re-Evaluation
2.01.1 Audit sequence	Re-Evaluation
2.02 Audit start date *	2024-04-09
2.16 First stakeholder consultation date for this audit	
2.03 Audit finish date *	2024-04-11
2.04 Total person days *	9,0
2.05 Date of report *	2024-04-21
2.06 Total area under evaluation *	88476,82615884 ha
Normative Documents	
2.07 Evaluated international normative document(s)	
2.07.1 Trademark standard FSC-STD-50-001 *	Yes
2.07.2 Group standard FSC-STD-30-005 *	No
2.07.3 CoC standard FSC-STD-40-004 *	No
2.07.4 ES procedure FSC-PRO-30-006 *	No
2.07.5 Excision Policy FSC-POL-20-003 *	Yes
2.07.6 Pesticides Policy FSC-POL-30-001 *	Yes
2.07.7 Applicable NTFP Standard *	No
2.07.8 CIP FSC PRO 30-011 *	No
2.08 Code(s) of NFSS or INS used *	FSC-STD-USA 1.1
2.09 Web link to the standard used	https://us.fsc.org/en-us/certification/forest-management-certification
2.10 If applicable, the adaptation process of CB interim standard	
2.17 Means of stakeholder engagement	
2.17.1 Face to face meetings	Yes
2.17.2 Virtual meetings	No
2.17.3 Contacted by phone	Yes
2.17.4 Email, or letter	Yes
2.17.5 Notice published in the national and/or local press	No
2.17.6 Notice published on relevant websites	No
2.17.7 Local radio announcements	No
2.17.8 Local customary notice boards	No
2.17.9 Social media broadcast	No
2.17.10 Other, please specify Your input here	
2.18 Stakeholder groups engaged in audit	
2.18.1 Economic interests	Yes
2.18.2 Social interests	Yes
2.18.3 Environmental interests	Yes
2.18.4 FSC-accredited certification bodies active in the country	No
2.18.5 National and state forest agencies	Yes
2.18.6 Experts with expertise in controlled wood categories	No
2.18.7 Research institutions and universities	No
2.18.8 FSC regional offices, FSC network partners, registered standard development groups and NRA working groups in the region	No
2.18.9 Forest workers, contractors	Yes
2.18.10 Local communities, residents	Yes
2.18.11 FME personnel	Yes
2.18.12 Indigenous Peoples	No
2.18.13 Other, please specify Your input here	
Certification Decision	
2.20 Conditions (corrections of minor non-conformities) or pre-conditions (corrections of major non-conformities) associated with the certification decision	
2.20.1 No specific condition *	No
2.20.2 Correction of minor NCRs issued within required timelines *	Yes
2.20.3 Correction of major NCRs issued within required timelines *	No
2.20.4 Correction of the pre-conditions to certification identified *	No
2.20.5 Other	One NCR issued, none prior to close
2.21 Lead auditor opinion	
2.21.1 The certificate holder's system of management, if implemented as described, is capable of ensuring that all of the requirements of the applicable standard(s) are met over the whole forest area covered by the scope of the evaluation. *	Yes
2.21.2 The certificate holder has demonstrated, subject to correction of the identified non-conformities, that the described system of management is being implemented consistently over the whole forest area covered by the scope of the certificate. *	Yes

The evaluation process

Question	Inputs
2.22 Auditor recommendation for the certificate holder's management system and performance	
2.22.1 A certificate can only be issued/reissued/maintained when all identified Major CARs are closed *	No
2.22.2 The FM system of the evaluated enterprise does not comply with the provisions and standards of FSC. Due to the number of identified major non-compliances the auditors recommend the immediate suspension of the certificate *	No
2.23 Certification decision *	Recertify
2.24 Decision detail	The Bureau Veritas Certification decides that the FSC FM certificate of the State of Maryland DNR - Forest Service is renewed. There are no open Major non-conformities. The identified minor non-conformity shall be closed within the deadlines defined in the section 14 of this report.
2.25 Decision date *	2024-05-20
2.26 Decision making entity *	FSC FM HUB of Bureau Veritas Certification

Personnel / audit team

Person Days				Expertise							
3.01 Name *	3.02 Role *	3.03 Prep / pre-evaluation *	3.04 On-site *	3.05.1 Forestry	3.05.2 Ecology	3.05.3 Sociology	3.05.4 Environment	3.05.5 Economics	3.06 Auditor UAN (enter 0 if none) *	3.07 Profile	Validation

Audit itinerary

					Type of Site															
4.01 Audit Itinerary Item Start Date	4.02 Hours	4.03 MUs or members	4.04 Activities	4.05 Site detail	4.06.1 Office	4.06.2 Seed orchards	4.06.3 Nursery	4.06.4 Protected area	4.06.5 Production forest area	4.06.6 Workers' amenities	4.06.7 Areas used by local communities and indigenous Peoples	4.06.8 Water courses	4.06.9 Power roads	4.06.10 Chemical storage sites	4.06.11 HCUs	4.06.12 Monitoring sites	4.06.13 Logging trails	4.06.14 Recreation area	4.06.15 Pesticide application area	4.06.16 Other, please specify
2024-04-09	1,50		Opening meeting, final field site selection	office setting and document review																
2024-04-09	7,50		Document review of P1-9	office setting and document review	Yes															
2024-04-09	15,00		Field session: site visits and interviews, split into two teams	Site inspections in Pocomoke Forest					Yes		Yes	Yes				Yes	Yes	Yes	Yes	
2024-04-10	24,00		Field session: site visits and interviews, split into three teams	Site inspections in Chesapeake Forest			Yes	Yes			Yes	Yes		Yes	Yes	Yes	Yes	Yes		
2024-04-11	6,00		Field session: site visits and interviews, one team	Site inspections in PocomokeForest	No			Yes			Yes	Yes		Yes	Yes	Yes	Yes			
2024-04-11	12,00		Follow up document review P1-9 and stakeholder consultation and interviews	office setting and document review, stakeholder cons	Yes															
2024-04-11	6,00		prepare audit findings and closing meeting	office setting	Yes															

Forest management enterprise information

Question	Inputs	Units	Validation
Forest Area			
5.02 Brief description of any area of forest over which the certificate holder has some responsibility, whether as owner (including shared or partial ownership), manager, consultant or other responsibility) which the certificate holder has chosen to exclude from the scope of the certificate, together with an explanation of the reason.	Some other state forests see very little silvicultural activity and are relatively small in acreage. DNR Forest Service has no interest in pursuing certification at this time on these lands. These state forests are: Elk Neck State Forest, Cedarville State Forest, Doncaster Demonstration Forest, Stoney Demonstration Forest, Salem State Forest, St. Inigoes.		OK
5.03 Area of forest owned/managed but excluded from MUs in the scope of certification			
5.03.1 According to FSC-POL-20-003 *	17230	acre	OK
5.03.2 Other reasons *	0	acre	OK
5.19 Environmental safeguards relevant to forest operations			
5.19.1 buffer zone *	Yes		OK
5.19.2 chemical use control *	Yes		OK
5.19.3 conservation area set aside *	Yes		OK
5.19.4 erosion control *	Yes		OK
5.19.5 other, please specify			
5.20 Description of environmental safeguards	Due diligence in planning operations, stakeholder consultation, employee training, site monitoring and inspection, and application of best management practices ensuring contract compliance are all used in concert safeguard environmental values.		OK
5.23 Species selection and rationale			
5.23.1 fast growing *	Yes		OK
5.23.2 pest & disease resistant *	Yes		OK
5.23.3 climate change *	Yes		OK
5.23.4 other, please specify	Few to no trees are planted on the western Maryland state forests. Trees planted in the eastern forests are from the Maryland Forest Service nursery.		OK
5.25 Main changes in forest management implemented to comply with requirements for FSC certification	none		OK
5.26 Main strengths and weaknesses with respect to the overall conformity with the Forest Stewardship Standard used for the evaluation	MDNR - Forest Service is a long standing and experienced certificate holder that routinely meets FSC FM requirements. They work with a number of agencies and stakeholder partners to ensure conformance with FSC requirements. The level of outreach and cooperation is outstanding. There are no weaknesses.		OK

Management Units

Area Units: ha

7.01 MU name *	7.02 Forest zone *	7.03 SLIMF type *	7.04 Tenure-ownership *	7.05 Tenure-management *	7.06 Centroid Latitude *	7.07 Centroid Longitude *	7.08 Total production forest area *	7.09 Total non-production forest area *	7.10 Total area of MU *	7.20 Group Member Managing	7.21 Active / Inactive
Number of Valid Entries:		4				Area Totals		74 723,99	13 752,84	88 476,83	
Chesapeake Forest Lands / Pocomok Temperate		Non-SLIMF	State	State	38,22332030	-75,46386750	37 547,95	1 086,18	38 634,12		Active
Green Ridge State Forest	Temperate	Non-SLIMF	State	State	39,62963622	-78,47620765	15 696,95	4 137,51	19 834,45		Active
Savage River State Forest	Temperate	Non-SLIMF	State	State	39,60084611	-79,13367914	14 947,47	7 532,01	22 479,48		Active
Potomac-Garrett State Forest	Temperate	Non-SLIMF	State	State	39,45049704	-79,31803996	6 531,63	997,15	7 528,77		Active

Main commercial timber species included in scope of the certificate

8.01 Species *	8.02 Product code *	8.03 Trade name	8.05 Remarks
Pinus spp.	W1.1 Roundwood (logs		The CH sells Pinus taeda and enchinata, but does not track separately.
Quercus spp	W1.1 Roundwood (logs		The CH sells Quercus alba and rubra, but does not track separately.
Acer rubrum	W1.1 Roundwood (logs		
Carya glabra	W1.1 Roundwood (logs)		
Liriodendron tulipifera L.	W1.1 Roundwood (logs)		
Tilia americana L.	W1.1 Roundwood (logs)		
Fraxinus americana	W1.1 Roundwood (logs)		
Prunus serotina Ehrh.	W1.1 Roundwood (logs)		
Betula nigra	W1.1 Roundwood (logs)		
Liquidambar styraciflua L.	W3.1 Wood chips		
Pinus spp.	W3.1 Wood chips		The CH sells Pinus taeda and enchinata, but does not track separately.

NTFP - non-timber forest products

9.01 Species *	9.02 Product code of NTFP *	9.03 Trade name	9.04 Current annual harvest
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Pesticide use since previous audit/year

10.01 Active ingredient *	10.02 Restriction	10.03 Applied area *	10.04 Reason for use *	10.05 Quantity of ingredient *	10.06 Summary of ESRA *
imazamox	Unrestricted	1,052182664 ha	Thistle, grass control in wildlife food plots	0,83279059248 litres	no ESRA for this use at https://dnr.maryland.gov/forests/Pages/pesticide-use.aspx
glyphosate	Restricted	3,7554827392 ha	invasive species control for species (e.g., Japanese knotweed) competing with native species and consistent with Early Detection and Rapid Response Plan	10,18275769896 litres	https://dnr.maryland.gov/forests/Pages/pesticide-use.aspx
trichlopyr	Unrestricted	6,0702846 ha	invasive species control for species (e.g., Bamboo) competing with native species and consistent with Early Detection and Rapid Response Plan	5,45099296896 litres	https://dnr.maryland.gov/forests/Pages/pesticide-use.aspx
imazapyr	Unrestricted	34,924370732 ha	release	30,62398133256 litres	https://dnr.maryland.gov/forests/Pages/pesticide-use.aspx

Forest context and management plan

Question	Inputs
11.28 Description of the forest	The FMUs are scattered from eastern to western Maryland. Forest descriptions are contained in detailed forest management plans that publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.29 Description of the management system	Maryland DNR - Forest Service is a public agency charged with managing public lands for multiple usesthe management system is desribed in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.01 Legislative, administrative and land use context of the forest operation	Legislative, adminstrative and land use context is contained in detailed forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.02 Roles of responsible government agencies involved in aspects of forest management	Maryland DNR - Forest Service is a public agency charged with managing public lands for multiple uses as desribed in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.03 Ownership and use-rights (both legal and customary) of lands and forest of external parties other than the certificate holder	Maryland DNR - Forest Service is a public agency charged with managing public lands for multiple uses; use rights are desribed in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx

Forest context and management plan

Question	Inputs
11.04 Non-forestry activities being undertaken within the area evaluated, whether they are undertaken by the certificate holder or by some other party (e.g. mining, industrial operations, agriculture, hunting, commercial tourism, etc.)	
11.04.1 mining	No
11.04.2 industrial operation	No
11.04.3 agriculture	No
11.04.4 hunting	Yes
11.04.5 commercial tourism	No
11.04.6 other, please specify	
11.05 Forest management objectives	Maryland DNR - Forest Service is a public agency charged with managing public lands for multiple uses; objectives are described in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.06 Land use and ownership status of the forest resource	Maryland DNR - Forest Service is a public agency charged with managing public lands for multiple uses
11.07 Socio-economic conditions of the forest management	Maryland DNR - Forest Service is a public agency charged with managing public lands for multiple uses; as described in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.08 Brief description of forest composition	see 11.28
11.09 Profile of adjacent lands	
11.09.1 urban	Yes
11.09.2 agriculture	Yes
11.09.3 wetland	Yes
11.09.4 mining	No
11.09.5 desert	No
11.09.6 pasture	Yes
11.09.7 orchards	Yes
11.09.8 other, please specify	
11.10 Management structure of the certificate holder	See 11.29

Forest context and management plan

Question	Inputs
11.11 Division of forest management responsibilities	See 11.29
11.12 Use of contractors by the certificate holder	
11.12.1 silviculture	Yes
11.12.2 road building	No
11.12.3 harvesting	No
11.12.4 transportation	No
11.12.5 forest protection	No
11.12.6 pest and disease control	Yes
11.12.7 other, please specify	
11.13 Training implemented by the certificate holder	MDNR- Forest Service foresters are well trained and maintain professional accreditations. Logging contractors are all trained under the Maryland Master Logger training program administered by the University of Maryland Cooperative Extension Service . The program exudes a collective commitment of the region's timber harvesters to high standards of professionalism and represents a voluntary adherence to rigorous principles of sustainable forestry and natural resource conservation.
11.14 Silvicultural system/regime implemented by the certificate holder	Silvicultural systems are described in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx
11.15 Technique used for harvesting operations of the certificate holder	
11.15.1 mechanized harvesting	Yes
11.15.2 manual harvesting	No
11.15.3 semi-mechanized harvesting	No
11.15.4 animal hauling	No
11.15.5 other, please specify	
11.16 Management strategy for the identification and protection of rare, threatened and endangered species	Rare, threatened or endangered species (RTE) are described in the in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx . Operational plans are prepared based on guiding direction in the management plan. A site activity plan, maps, contracts, specific activity requirements, etc. is developed and reviewed n interdisciplinary team for all forest operations prior to commencement of any activity.
11.17 Forest monitoring methods implemented by the certificate holder	
11.17.1 forest inventory	Yes
11.17.2 drone monitoring	No
11.17.3 remote sensing	No
11.17.4 social survey	No
11.17.5 sampling plots	Yes
11.17.6 other, please specify	

Forest context and management plan

Question	Inputs
11.18 Elaboration of Monitoring of growth, yield and forest dynamics including change of fauna and flora	MDNR has a robust monitoring and inspection program and protocols in place that includes, but is not limited to, growth and yield, BMP and regulatory compliance, fish and wildlife monitoring, HCVF and RSA monitoring, and health and safety. Monitoring is broadly described in the in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx . MDNR prepares and implements an annual monitoring plan for wildlife and hertiage.
11.19 Environmental and social impacts, and costs, productivity, and efficiency	These attributes are addressed in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx . In addition MDNR maintains an interdisciplinary team of experts and a Citizens Advisory Committee that review the social and environmental risks and impacts of implementation of the SFMPs and AWP. MDNR also produces a quarterly timber sale report that summarizes the timber revenues, available and actual harvest area and volumes harvested for each FMU. MDNR monitors contractors for productivity, and contract adherence. MDNR produces an annual report (https://dnr.maryland.gov/Documents/2022-annual-report.pdf) that is publicly available and addresses the environmental and social elements including fiscal responsibilities.
11.20 Explanation of the assumptions (e.g. silvicultural) on estimate of the maximum sustainable yield for the main commercial species	Sustained yield and harvest planning are described in the in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx . The agency has consistently harvested at levels well below the sustained yield.
11.21 Reference to the source of data (e.g. inventory data, permanent sample plots, yield tables) on which estimates are based	See above, the agency has a well maintained continuous forest inventory program that is described in the in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx .
11.22 Investments and measures taken for the prevention and control of natural hazards (fires, storm, flood, disease, pests, pathogens etc.) during the last calendar year	Prevention and control efforts are described in the in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx . Specifics are detailed in annual work plans for each forest.

Forest context and management plan

Question	Inputs
11.23 The risk of products from non-certified sources (including any areas specifically excluded from the scope of the certificate) being mixed with products from the forest area evaluated	The risk of mixing is low. All timber is sold under a lump sum or pay as cut contract, both of which include the FSC 100% claim and certificate code. All loads are tracked internally by MDNR which confirms source, claim and purchaser and log accounting reconciliation and also by the purchaser using the same metrics.
11.23.1 Description of segregation controls implemented	See 11.23, for lump sum sales the purchaser takes ownership when the contract is executed, for pay as cut contracts the purchaser takes ownership when it crosses the receiving mill scales.
11.24 Explanation of the control (tracking and tracing) systems in place that address the risk identified	See 11.23
11.25 The documentation or marking system that allows products from the certified forest area to be reliably identified	
11.25.1 documents with transportation	Yes
11.25.2 tree mark	No
11.25.3 bar code or quadratic code	No
11.25.4 other, please specify	
11.26 Elaboration of the chain of custody documentation or marking system	See 11.23
11.27 The final point or forest gate of the certified product	
11.27.1 log yard	Yes
11.27.2 road side	No
11.27.3 other, please specify	

13.04 Complaint detail *

13.05
Open/Closed *

13.06 Actions *

13.07 Close
date *

Stakeholder comment(s)

12.01 Stakeholder group	12.02 Stakeholder description	12.03 Stakeholder's comment	12.04 Notified before audit?	12.05 Interviewed during this audit?	12.06 CB's follow up
Forest workers, contractors	Forestry operations contractors (3)	MDNR is excellent to work with, expectations are clearly defined.	Yes	Yes	Thanked stakeholders for comments and for input into the audit process
Environmental interests	NGO	Concerned MDNR is not protecting enough old growth, comments on the 2022 work plan were not addressed	Yes	Yes	Met on site with stakeholder to discuss concerns about harvesting of trees thought to be OG and CH, OBS-02 raised to provide more detail in AWP maps such as buffers, retention trees, etc. so that stakeholders, Interdisciplinary team and Citizens Advisory Committee review is better informed. Audit reviewed all correspondence with stakeholders and determined the CH had responded to concerns. Thanked stakeholder for meeting with auditors, told their comments form part of evidence collected in audit and that auditors would follow up on concerns.
Economic interests	mill log purchaser	State wood is very important for our 5th generation sawmill, we hope they continue to offer sales	No	Yes	Thanked stakeholder for the comment and noted the plans for continued sales and requiremnt in the FMP to maintain working forests.
Environmental interests	NGO	MDNR is not provided enough avian habitat or adequately protecting that habitate when logging occurs	Yes	Yes	Auditors met onsite with stakeholder and after discussion of buffers and retention, stakeholder satisfied adequate protection and habitat on block. Thanked stakeholder, told comments form part of evidence collected in audit and audit issued an OBS-02 to include more detail on AWP maps related to habitat protection, etc.; confirms P6 requirements.
Local communities, residents	recreationist	Handicapped hunter is very appreciated of the specificaccess opportunities provided by DNR	No	Yes	Thanked stakeholder, confirms P5 requirements
Social interests	Maryland Forestry Assoication	Both economic and social interest to keep working forests working and open to the public, complimentary of DNR efforts in both regards.	Yes	Yes	Thanked stakeholder, confirms P4 and P6 requirements
Environmental interests	hunting lease holder	Glad we have the lease, they are very responsive	No	Yes	Thanked stakeholder, confirms P5
FME personnel	MDNR Forest Service employees (10)	Enjoy the work, team approach, open dialogue and professional development	Yes	Yes	Thanked all, confirms P5

Nonconformities/Observations raised

14.01 Unique Finding number *	14.02 CB Non-conformity Ref	14.06 Grading *	14.07 Open / Closed *	14.08 Standard *	14.09 Clause *	14.03 Issue date *	14.04 Due date *	14.05 Close date *	14.10 Requirement *	14.11 Description of audit finding *	14.12 Corrective action taken by the auditee	14.13 CB's review of corrective actions
2024-C016194-1 01		Minor	Open	Pesticides Policy FSC-POL-30-001	4.12	2024-04-11	2025-04-10		Organization shall Undertake a comparative ESRA according to scale, intensity and risk (SIR) as part of its integrated pest management to identify the lowest risk option to control a pest, weed or disease, the conditions for its use and the generic mitigation and monitoring measures to minimize the risks. Before applying any chemical pesticide, incorporate the results of their ESRA to site operational plans, to identify site-specific risks and adapt the generic mitigation and monitoring measures previously identified in the IPM ESRA (Clause 4.12.2).	Audit evidence listed this chemical as used on the FMUs and use was confirmed by CH. Audit discovered there is no ESRA in place for the use of Imazamox use at https://dnr.maryland.gov/forests/Pages/pesticide-use.aspx .		
2024-C016194-2 02		Obs	Open	NFSS	7.4.b	2024-04-11			Managers of public forests make draft management plans, revisions and supporting documentation easily accessible for public review and comment prior to their implementation. Managers address public comments and modify the plans to ensure compliance with this Standard.	Detail on AWP maps may be lacking (net area of the harvest after protection of riparian, legacy trees & other values) which may preclude a more informed review by the Interdisciplinary team, Citizen's Advisory Committee and the public.		
2024-C016194-3 03		Obs	Open	NFSS	5.3.a	2024-04-11			Management practices are employed to minimize the loss and/or waste of harvested forest products.	The majority of sites visited during the audit found efforts were made to minimize unutilized forest products. Auditors viewed one site (Selby block) where a lack of a pulp market and a change in sawlog specs resulted in considerable unmarketable material was left onsite. The CH noted the unutilized fibre in their cut inspections. Auditors were informed the block is still active and there is a plan to utilize the unmarketable material with a chipper. The excessive pulpwood left on the ground is estimated at four to five loads. In consideration the block is still active and the CH has a plan to utilize the fibre, this is classified as an observation.		

Principles & Criteria Summary

Version		V4		
Display	Index	18.01 Standard Requirement	18.02 Num CARs	18.03 Summary Assessment
	P1	Forest management shall respect all applicable laws of the country in which they occur, and international treaties and agreements to which the country is a signatory, and comply with all FSC Principles and Criteria.	0	
	C1.01	Forest management shall respect all national and local laws and administrative requirements.	0	All of the field sites visited were inspected by MDNR staff to ensure compliance with MD BMPs and other applicable regulations. All demonstrated full compliance with applicable BMPs. Inspection reports are well documented. No outstanding or unresolved external violations, outstanding complaints or investigations reported.
	C1.02	All applicable and legally prescribed fees, royalties, taxes and other charges shall be paid.	0	As a State agency, MDNR – Forest Service is tax exempt. Auditors viewed timber sale payments as per type of timber sale: a) stump or b) pay as cut (\$/ton). No discrepancies were noted by auditors. Auditors also viewed local tax payments made to the county for the previous 6 months. The audit found all invoices and fees are paid within 30 days. Interviews with receiving mills and forestry workers confirm above.
	C1.03	In signatory countries, the provisions of all binding international agreements such as CITES, ILO Conventions, ITTA, and Convention on Biological Diversity, shall be respected.	0	This criterion has limited applicability for DNR as there are no CITES species in the operating area. Five of the ILO core conventions (87, 98, 29, 138 and 100) have been found to directly conflict with U.S. law and practice and would require significant and widespread changes to U.S. state and federal law if they were ratified. The US is the only UN member state which has not ratified the Convention on Biological Diversity
	C1.04	Conflicts between laws, regulations and the FSC Principles and Criteria shall be evaluated for the purposes of certification, on a case by case basis, by the certifiers and the involved or affected parties.	0	There are no known conflicts with local laws and regulations
	C1.05	Forest management areas should be protected from illegal harvesting, settlement and other unauthorized activities.	0	MDNR FS and their service provider (Parker Forestry Services LLC) carry out regular inspections during active harvest and carry out periodic monitoring of the forest noting any garbage or other illegal activities. All illegal activities are reported to MFS and, in turn, the enforcement arm of DNR. Interviews with MFS staff and service providers confirm there have been no illegal logging or damage to equipment in recent memory.
	C1.06	Forest managers shall demonstrate a long-term commitment to adhere to the FSC Principles and Criteria.	0	Background and History of the Forest in the 2023 (version 13) of the Sustainable Forest Management Plan (SFMP) describes the transfer of ownership of the certified lands to the State. Field verification confirmed that each property is marked with State identification signs. The property has been FSC certified since 2004.
	P2	Long-term tenure and use rights to the land and forest resources shall be clearly defined, documented and legally established.	0	
	C2.01	Clear evidence of long-term forest use rights to the land (e.g. land title, customary rights, or lease agreements) shall be demonstrated.	0	Background and History of the Forest in the 2023 (version 13) of the Sustainable Forest Management Plan (SFMP) describes the transfer of ownership of the certified lands to the State. Field verification confirmed that each property is marked with State identification signs. The property has been FSC certified since 2004.
	C2.02	Local communities with legal or customary tenure or use rights shall maintain control, to the extent necessary to protect their rights or resources, over forest operations unless they delegate control with free and informed consent to other agencies.	0	These are public lands managed for multiple uses. There are no other third party tenure or use rights established by law on the FMUs, except for some hunting leases.
	C2.03	Appropriate mechanisms shall be employed to resolve disputes over tenure claims and use rights. The circumstances and status of any outstanding disputes will be explicitly considered in the certification evaluation. Disputes of substantial magnitude involving a significant number of interests will normally disqualify an operation from being certified.	0	The MFS documents all significant complaints, but there are no disputes over tenure use noted in recent history. Disputes over planned activities appear as comments in AWP and MFS considers all comments and, where appropriate, adjusts the AWP. MFS relies on the review process by the Interdisciplinary team and Citizen's Advisory Committee when deciding on changes to the AWP
	P3	The legal and customary rights of indigenous peoples to own, use and manage their lands, territories, and resources shall be recognized and respected.	0	
	C3.01	Indigenous peoples shall control forest management on their lands and territories unless they delegate control with free and informed consent to other agencies.	0	There is no tribal specific forest management planning on the FMUs. There are three federally recognized tribes in the State of Maryland and other unrecognized tribes the the State works with. None of these are located on the FMUs. Maryland DNR maintains a database of Indigenous values that are incorporated into management planning. The interdisciplinary team, composed of other State agencies, reviews all State SFMPs and AWP.

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	C3.02	Forest management shall not threaten or diminish, either directly or indirectly, the resources or tenure rights of indigenous peoples.	0	No tribal claims are known to exist within the FMUs.
	C3.03	Sites of special cultural, ecological, economic or religious significance to indigenous peoples shall be clearly identified in cooperation with such peoples, and recognized and protected by forest managers.	0	See 3.2; no known sites exist on the FMUs
	C3.04	Indigenous peoples shall be compensated for the application of their traditional knowledge regarding the use of forest species or management systems in forest operations. This compensation shall be formally agreed upon with their free and informed consent before forest operations commence.	0	See above, not applicable
	P4	Forest management operations shall maintain or enhance the long-term social and economic well-being of forest workers and local communities.	0	
	C4.01	The communities within, or adjacent to, the forest management area should be given opportunities for employment, training, and other services.	0	Purchasers and contractors are local residents, verified through contracts and L&I records. All goods and services are locally obtained; all products are sold to area mills.
	C4.02	Forest management should meet or exceed all applicable laws and/or regulations covering health and safety of employees and their families.	0	MFS meets and/or exceeds all laws and regulations related to health and safety. All timber sale agreements include requirements to meet all laws and regulations, including health and safety. There were no active operations at the time of the audit to validate. MDNR has a regulatory arm that also may inspect sites. MFS employee OHS program is in place, a number of records reviewed. No OSHA reportable.
	C4.03	The rights of workers to organize and voluntarily negotiate with their employers shall be guaranteed as outlined in Conventions 87 and 98 of the International Labour Organisation (ILO).	0	Maryland DNR has an office of fair practices with a policy on fair practices that includes the freedom to associate. All MFS staff and service provider staff interviewed during the audit stated they were free to associate with whom they wish.
	C4.04	Management planning and operations shall incorporate the results of evaluations of social impact. Consultations shall be maintained with people and groups (both men and women) directly affected by management operations.	0	Maryland DNR-MFS has a mature forest management system that includes forests designated for recreation and forest education. The SFMP and AWP planning process includes open houses and a public website for public comments on AWP. Social impacts are a part of the planning process. Auditors reviewed several AWP and noted that the approved AWP include public comments received and how they were considered in the AWP. Auditors met with several stakeholders during the audit and two participated in the field portion of the audit.
	C4.05	Appropriate mechanisms shall be employed for resolving grievances and for providing fair compensation in the case of loss or damage affecting the legal or customary rights, property, resources, or livelihoods of local peoples. Measures shall be taken to avoid such loss or damage.	0	Maryland DNR-MFS has a publicly available dispute resolution process through their public affairs office should and damage or loss occur as a result of DNR activities. None noted since the prior audit
	P5	Forest management operations shall encourage the efficient use of the forest's multiple products and services to ensure economic viability and a wide range of environmental and social benefits.	0	
	C5.01	Forest management should strive toward economic viability, while taking into account the full environmental, social, and operational costs of production, and ensuring the investments necessary to maintain the ecological productivity of the forest.	0	As a State agency, Maryland DNR-MFS is financially able to implement the FSC Standard. The audit reviewed implementation of programs to control the spread of invasive species, RTE species protection and habitat management, silvicultural activities to improve regeneration of native species and the economic viability of the forest industry, public recreation trails and protection of values and SMAs.
	C5.02	Forest management and marketing operations should encourage the optimal use and local processing of the forest's diversity of products.	0	All forest products are sold locally. All forest products are sold through timber sales bids as either; a) stump sale or b) \$/ton – pay as cut. Auditors interviewed one mill owner and another purchaser/operator during the audit and felt the timber sales system was fair and bids are competitive. The stakeholder had no issues with Maryland DNR-MFS.

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	C5.03	Forest management should minimize waste associated with harvesting and on-site processing operations and avoid damage to other forest resources.	0	The majority of sites visited during the audit found efforts were made to minimize unutilized forest products. Auditors viewed one site (Selby block) where a lack of a pulp market and a change in sawlog specs resulted in considerable unmarketable material was left onsite. Auditors were informed the block is still active and there is a plan to utilize the unmarketable material with a chipper
	C5.04	Forest management should strive to strengthen and diversify the local economy, avoiding dependence on a single forest product.	0	Purchased logs are delivered directly to mills within a profitable hauling distance from the land base. State Forests are a primary supplier for local markets which employ directly from local communities for processing of wood products, harvesting and other contractors. Recreational use is very high on high on these forests; such activity supports the local economy as well.
	C5.05	Forest management operations shall recognize, maintain, and, where appropriate, enhance the value of forest services and resources such as watersheds and fisheries.	0	See above. Also, Maryland DNR – FS has developed a Climate Change Adaptation and Resilience Planning Guide for both Chesapeake and Pocomoke State Forests that involved the efforts of MFS foresters and other DNR departments (e.g., DNR Coastal Service). The document references how the State of Maryland has been addressing climate change. A comprehensive Strategy for reducing Maryland’s vulnerability to climate change recommends an increase in forests as protection from flooding. Maryland DNR – FS response is to practice adaptive management. Auditors viewed sites where the prescription is to move from a pure conifer forest to a more natural mixedwood forest. The audit also heard that Maryland DNR – MFS continues to purchase lands and return those lands to forest.
	C5.06	The rate of harvest of forest products shall not exceed levels which can be permanently sustained.	0	SFMPs detail the modeling undertaken to calculate the long-term sustainable harvest levels for the various silvicultural systems used by Maryland DNR-FS. Growth and yield data used in the modeling varies depending on the State Forest. For example, Chesapeake yield tables were developed from actual data collected over a period of 2 years. Yield tables include consideration for mortality and decay and are presented by site, age, and species. Auditors reviewed the 2023 MFS Timber Harvest Report and harvest histories for the last 10 years and found the average harvest rates were well below the calculated sustained harvest level.
	P6	Forest management shall conserve biological diversity and its associated values, water resources, soils, and unique and fragile ecosystems and landscapes, and, by so doing, maintain the ecological functions and the integrity of the forest.	0	
	C6.01	Assessment of environmental impacts shall be completed - appropriate to the scale, intensity of forest management and the uniqueness of the affected resources - and adequately integrated into management systems. Assessments shall include landscape level considerations as well as the impacts of on-site processing facilities. Environmental impacts shall be assessed prior to commencement of site-disturbing operations.	0	The SFMPs reviewed include best science and analysis including local knowledge and experience of an interdisciplinary planning team, Scientific Review Team, and Maryland DNR overseen by a Steering Committee. For example, the Chesapeake SFMP Steering committee was made up of representatives from The Conservation Fund, Maryland DNR, The Chesapeake Bay Foundation, and a consulting forester. Annual work plans provide a review of ecological impacts of the site prior to conducting harvesting or silvicultural activities. These also describe specific steps to take to address any potential impacts on affected resources. The SFMP includes an assessment of: •Geology and soils •Water resources and hydrologic modifications •Wildlife •RTE species •Plant communities of Special Concern •Game and bird species of special concern •Forest communities •History and background including settlement and fire •Landscape considerations •Water quality issues and, •Climate change
	C6.02	Safeguards shall exist which protect rare, threatened and endangered species and their habitats (e.g., nesting and feeding areas). Conservation zones and protection areas shall be established, appropriate to the scale and intensity of forest management and the uniqueness of the affected resources. Inappropriate hunting, fishing, trapping and collecting shall be controlled.	0	The SFMP provides a summary of the assessment of RTE species present on the certified lands. The existence of, for example, the Delmarva Fox Squirrel (DFS), is well known as efforts to restore this species in Maryland began in 1945. The species is no longer an RTE species, but the State manages it as a featured species. DFS core areas are occupied areas as identified by the DNR Wildlife and Heritage Division. Monitoring of RTE or featured species is an ongoing program that uses a 3-tiered approach: •Tier I – landscape-level inventory •Tier II – stand/complex level inventory, and •Tier III – specific project and research assessments

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	C6.03	Ecological functions and values shall be maintained intact, enhanced, or restored, including: a) Forest regeneration and succession. b) Genetic, species, and ecosystem diversity. c) Natural cycles that affect the productivity of the forest ecosystem.	0	See C6.01, The State of Maryland DNR – MFS has no identified old growth stands however, they have identified portions of several tracts to manage for future old growth to meet old growth objectives in the SFMP and the FSC Standard. They are actively striving to move planted pine only stands to more of a mixed pine and hardwood natural stands. These areas are identified in their database and presented in the Chesapeake and Pocomoke SFMPs
	C6.04	Representative samples of existing ecosystems within the landscape shall be protected in their natural state and recorded on maps, appropriate to the scale and intensity of operations and the uniqueness of the affected resources.	0	The SFMPs include goals to protect and enhance biological diversity native to the area. Each of the SFMPs have a chapter describing the natural ecosystems that exist on the FMU including quantification. For example, Chapter 5.15.3 for the Pocomoke State Forest SFMP identifies the 5 management areas, referred to in 6.1.b., that are protected and managed to restore, maintain, or enhance the particular ecological feature. Chapter 7 addresses HCVF, ESA and other State protected lands. Chapter 8 discusses Core Forest Interior Dwelling Birds and riparian buffers, and future old growth are described in Chapter 6. As a State agency, Maryland DNR-MFS collaborates with other State departments (Maryland Park Service, Maryland Wildlife & Heritage Service, Freshwater Fisheries Division, and Land Acquisition & Planning), universities, external experts, conservation organizations (The Nature Conservancy, The Audubon Society) in the assessment and identification of protected spaces in the FMUs. The audit reviewed the Methodology for Evaluating Representative sample areas (RSA) for Naturally Occurring Ecosystems with the Region of Maryland State Forests and found it addresses all the elements in this Indicator.
	C6.05	Written guidelines shall be prepared and implemented to: control erosion; minimize forest damage during harvesting, road construction, and all other mechanical disturbances; and protect water resources.	0	MFS Policy and Procedures Handbook contains BMP direction that meets or exceeds the components of this criterion. Auditors did not view any practices in the field that did not adhere to the BMPs.
	C6.06	Management systems shall promote the development and adoption of environmentally friendly non-chemical methods of pest management and strive to avoid the use of chemical pesticides. World Health Organization Type 1A and 1B and chlorinated hydrocarbon pesticides; pesticides that are persistent, toxic or whose derivatives remain biologically active and accumulate in the food chain beyond their intended use; as well as any pesticides banned by international agreement, shall be prohibited. If chemicals are used, proper equipment and training shall be provided to minimize health and environmental risks.	0	Auditors reviewed the State Forest Pesticide Use Summary 2024 to ensure no HHPs are used in the FMUs. Maryland DNR-MFS uses various formulations of glyphosate and triclopyr, according to 2024 spray records reviewed, for the control of invasive or competing vegetation. Very minor use has occurred. The audit did note there was no ESRA for Imazamox, as required, and have issued a non-conformance (NC-01) under FSC-POL-30-001 V3 to address this oversight.
	C6.07	Chemicals, containers, liquid and solid non-organic wastes including fuel and oil shall be disposed of in an environmentally appropriate manner at off-site locations.	0	Employees receive initial training on spill response. Logging contractors are required to maintain spill kits on site and receive training through Maryland Pro-Logger training. No reportable spills (>5 gallons) in the past year. None of the interviewees said they had any spill issues on sites.
	C6.08	Use of biological control agents shall be documented, minimized, monitored and strictly controlled in accordance with national laws and internationally accepted scientific protocols. Use of genetically modified organisms shall be prohibited.	0	Not applicable. The audit confirmed that, MDNR currently does not use biological control agents.
	C6.09	The use of exotic species shall be carefully controlled and actively monitored to avoid adverse ecological impacts.	0	There are no exotic species planted on the certified lands, none observed in the field
	C6.10	Forest conversion to plantations or non-forest land uses shall not occur, except in circumstances where conversion: a) entails a very limited portion of the forest management unit; and b) does not occur on high conservation value forest areas; and c) will enable clear, substantial, additional, secure, long term conservation benefits across the forest management unit.	0	As these are state forests, conversion are prohibited. Site visits, and travel between sites, confirm no conversions of use to plantations or non-forest land.
	P7	A management plan - appropriate to the scale and intensity of the operations - shall be written, implemented, and kept up to date. The long term objectives of management, and the means of achieving them, shall be clearly stated.	0	

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	C7.01	<p>The management plan and supporting documents shall provide:</p> <ul style="list-style-type: none"> a) Management objectives. b) Description of the forest resources to be managed, environmental limitations, land use and ownership status, socio-economic conditions, and a profile of adjacent lands. c) Description of silvicultural and/or other management system, based on the ecology of the forest in question and information gathered through resource inventories. d) Rationale for rate of annual harvest and species selection. e) Provisions for monitoring of forest growth and dynamics. f) Environmental safeguards based on environmental assessments. g) Plans for the identification and protection of rare, threatened and endangered species. h) Maps describing the forest resource base including protected areas, planned management activities and land ownership. i) Description and justification of harvesting techniques and equipment to be used. 	0	The SFMP plans reviewed for Chesapeake, Pokomoke and Green Ridge State Forests include all elements identified in this Indicator
	C7.02	The management plan shall be periodically revised to incorporate the results of monitoring or new scientific and technical information, as well as to respond to changing environmental, social and economic circumstances.	0	The Chesapeake SFMP was revised in May 2023, The Green Ridge SFMP was updated in 2019 and the Pokomoke SFMP was revised in 2023. Maryland DNR-MFS have opted to revise the above plans as new science or changes in legislation/regulations are discovered. For example, the Chesapeake SFMP was first written in 2010 and has been revised 13 times for changes to the FSC Standard, land acquisitions, RTE species designation, best management practices, etc
	C7.03	Forest workers shall receive adequate training and supervision to ensure proper implementation of the management plan.	0	Logging contractors are required to maintain qualified master-logger training through the Maryland-Delaware Master Logger Program. Auditors checked the active master logger directory for logging contractors and found all were accredited.
	C7.04	While respecting the confidentiality of information, forest managers shall make publicly available a summary of the primary elements of the management plan, including those listed in Criterion 7.1.	0	As a State agency, all SFMPs and the AWP are available publicly on the Maryland.gov website Management Plan (maryland.gov). Obs issued
	P8	Monitoring shall be conducted - appropriate to the scale and intensity of forest management - to assess the condition of the forest, yields of forest products, chain of custody, management activities and their social and environmental impacts.	0	
	C8.01	The frequency and intensity of monitoring should be determined by the scale and intensity of forest management operations as well as the relative complexity and fragility of the affected environment. Monitoring procedures should be consistent and replicable over time to allow comparison of results and assessment of change.	0	The SFMPs outline the scale and frequency of monitoring activities in the FMUs and the MFS Policies and Procedures Handbook detail how the monitoring is conducted.
	C8.02	<p>Forest management should include the research and data collection needed to monitor, at a minimum, the following indicators:</p> <ul style="list-style-type: none"> a) Yield of all forest products harvested. b) Growth rates, regeneration and condition of the forest. c) Composition and observed changes in the flora and fauna. d) Environmental and social impacts of harvesting and other operations. e) Costs, productivity, and efficiency of forest management. 	0	MDNR has a robust monitoring and inspection program and protocols in place that includes, but is not limited to, growth and yield, BMP and regulatory compliance, fish and wildlife monitoring, HCVF and RSA monitoring, and health and safety. Monitoring is broadly described in the in forest management plans that are publicly available at https://dnr.maryland.gov/forests/Pages/mdforests.aspx . MDNR prepares and implements an annual monitoring plan for wildlife and heritage
	C8.03	Documentation shall be provided by the forest manager to enable monitoring and certifying organizations to trace each forest product from its origin, a process known as the "chain of custody".	0	All timber is sold with a FSC 100% claim and certificate code. For lump sum sales the purchaser takes ownership at the stump. For pay as cut contracts the purchaser takes ownership when loads cross the receiving mill scales. The risk of mixing is low.
	C8.04	The results of monitoring shall be incorporated into the implementation and revision of the management plan.	0	The preface page in the SFMPs lists the revisions made to the plans. A review of those revisions and MFS staff interviews confirms adjustments have been made to both objectives and guidelines over the years to conform to the current FSC Standard.

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	C8.05	While respecting the confidentiality of information, forest managers shall make publicly available a summary of the results of monitoring indicators, including those listed in Criterion 8.2.	0	Maryland DNR-FS produces an annual report that summarizes monitoring results for the applicable indicators
	P9	Management activities in high conservation value forests shall maintain or enhance the attributes which define such forests. Decisions regarding high conservation value forests shall always be considered in the context of a precautionary approach.	0	
	C9.01	Assessment to determine the presence of the attributes consistent with High Conservation Value Forests will be completed, appropriate to scale and intensity of forest management.	0	The SFMPs includes maps of HCVF areas within each FMU consistent with Appendix F of the FSC FM Standard. As noted earlier, there are no identified old growth HCVF only future old growth areas.
	C9.02	The consultative portion of the certification process must place emphasis on the identified conservation attributes, and options for the maintenance thereof.	0	The development of SMAs (HCVF) was done for each FMU during development of the SFMP and involved an interdisciplinary team of representatives from Maryland DNR-MFS, other State departments, agencies, universities, consultants, NGOs and conservation organizations. The initial assessment was performed by MD DNR -MFS resulting in the 5 management zones identified in 6.1. The assignment of SMAs was then reviewed internally by the above and by the Citizen's Advisory Committee before review by the publi
	C9.03	The management plan shall include and implement specific measures that ensure the maintenance and/or enhancement of the applicable conservation attributes consistent with the precautionary approach. These measures shall be specifically included in the publicly available management plan summary.	0	SFMPs include specific measures for HCVF. Auditor observations in the field confirm management activities in HCVFs maintain and/or enhance the values. Harvest operations observed maintain both short-term retention as seed trees or legacy trees and long-term retention for structure and wildlife habitat
	C9.04	Annual monitoring shall be conducted to assess the effectiveness of the measures employed to maintain or enhance the applicable conservation attributes.	0	The DNR Wildlife and Heritage Service are responsible for annual monitoring of the status of HCV attributes and management measures. Direct interview and written comments provided by Heritage confirms DNR FS is doing a responsible job or protecting HCVFs.
	P10	Plantations shall be planned and managed in accordance with Principles and Criteria 1-9, and Principle 10 and its Criteria. While plantations can provide an array of social and economic benefits, and can contribute to satisfying the world's needs for forest products, they should complement the management of, reduce pressures on, and promote the restoration and conservation of natural forests.	0	Not applicable
	C10.01	The management objectives of the plantation, including natural forest conservation and restoration objectives, shall be explicitly stated in the management plan, and clearly demonstrated in the implementation of the plan.	0	na
	C10.02	The design and layout of plantations should promote the protection, restoration and conservation of natural forests, and not increase pressures on natural forests. Wildlife corridors, streamside zones and a mosaic of stands of different ages and rotation periods, shall be used in the layout of the plantation, consistent with the scale of the operation. The scale and layout of plantation blocks shall be consistent with the patterns of forest stands found within the natural landscape.	0	na
	C10.03	Diversity in the composition of plantations is preferred, so as to enhance economic, ecological and social stability. Such diversity may include the size and spatial distribution of management units within the landscape, number and genetic composition of species, age classes and structures.	0	na
	C10.04	The selection of species for planting shall be based on their overall suitability for the site and their appropriateness to the management objectives. In order to enhance the conservation of biological diversity, native species are preferred over exotic species in the establishment of plantations and the restoration of degraded ecosystems. Exotic species, which shall be used only when their performance is greater than that of native species, shall be carefully monitored to detect unusual mortality, disease, or insect outbreaks and adverse ecological impacts.	0	na

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	C10.05	A proportion of the overall forest management area, appropriate to the scale of the plantation and to be determined in regional standards, shall be managed so as to restore the site to a natural forest cover.	0	na
	C10.06	Measures shall be taken to maintain or improve soil structure, fertility, and biological activity. The techniques and rate of harvesting, road and trail construction and maintenance, and the choice of species shall not result in long term soil degradation or adverse impacts on water quality, quantity or substantial deviation from stream course drainage patterns.	0	na
	C10.07	Measures shall be taken to prevent and minimize outbreaks of pests, diseases, fire and invasive plant introductions. Integrated pest management shall form an essential part of the management plan, with primary reliance on prevention and biological control methods rather than chemical pesticides and fertilizers. Plantation management should make every effort to move away from chemical pesticides and fertilizers, including their use in nurseries. The use of chemicals is also covered in Criteria 6.6 and 6.7.	0	na
	C10.08	Appropriate to the scale and diversity of the operation, monitoring of plantations shall include regular assessment of potential on-site and off-site ecological and social impacts, (e.g. natural regeneration, effects on water resources and soil fertility, and impacts on local welfare and social well-being), in addition to those elements addressed in principles 8, 6 and 4. No species should be planted on a large scale until local trials and/or experience have shown that they are ecologically well-adapted to the site, are not invasive, and do not have significant negative ecological impacts on other ecosystems. Special attention will be paid to social issues of land acquisition for plantations, especially the protection of local rights of ownership, use or access.	0	na
	C10.09	Plantations established in areas converted from natural forests after November 1994 normally shall not qualify for certification. Certification may be allowed in circumstances where sufficient evidence is submitted to the certification body that the manager/owner is not responsible directly or indirectly of such conversion.	0	na