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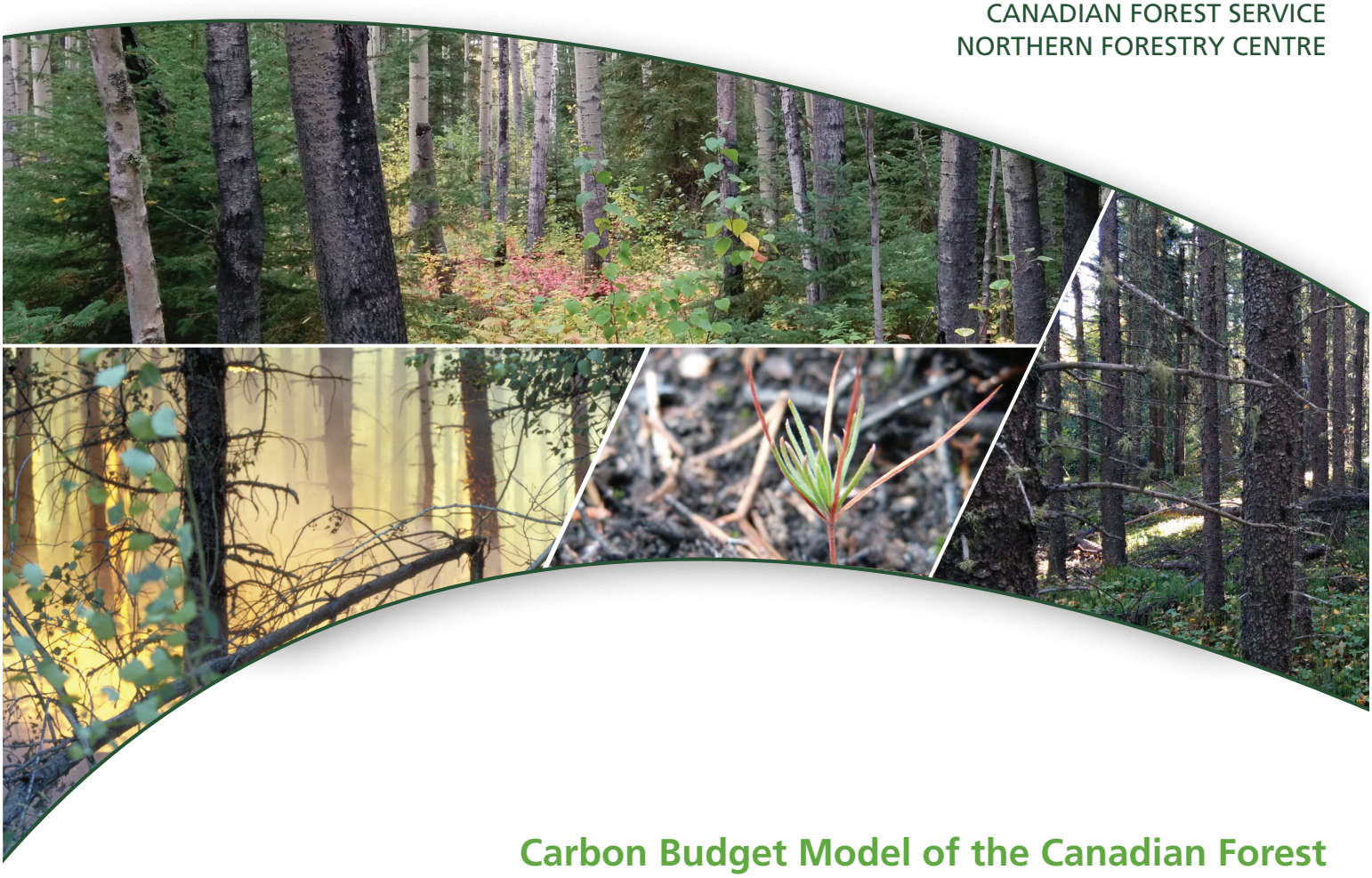

Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3): Archive Index Database Table and Parameter Descriptions

S.J. Kull, S. Morken, C.E. Smyth, and M. Fellows

2017

Canada

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Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3): Archive Index Database Table and Parameter Descriptions

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Canadian Forest Service
Northern Forestry Centre
2017

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Catalogue No.: Fo134-10/2017E-PDF
ISBN 978-0-660-09042-9

For an electronic version of this report, visit the Canadian Forest Service publications website at http://cfs.nrcan.gc.ca/ publications

TTY : 613-996-4397 (Teletype for the hearing-impaired)

Cover photos: Top: Stephen Kull, bottom left: Natural Resources Canada photo database, bottom centre: Catherine McNalty, right-hand side: Stephen Kull.

Kull, S.J.; Morken, S.; Smyth, C.E.; Fellows, M. 2017. Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3): Archive Index Database Table and Parameter Descriptions. Natural Resources Canada, Canadian Forest Service, Northern Forestry Centre, Edmonton, Alberta.

Abstract

The Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3), version 1.2, is a stand- and landscape-level modeling framework that can be used to simulate the dynamics of all forest carbon pools required under the United Nations Framework Convention on Climate Change and the Kyoto Protocol. It is compliant with the carbon estimation methods outlined in the guidelines of the Intergovernmental Panel on Climate Change. The model is distributed free-of-charge from Natural Resources Canada, and comes with a set of default ecological parameters and data developed for forests of Canada, and these can be modified by the user, allowing for the application of the model in other countries. The Microsoft Access database housing these parameters and data is called the Archive Index Database (AIDB). The AIDB contains over 70 tables, each with varying numbers of fields populated with different types of data and parameters. This report describes the database tables and their relevance in the model, the fields they contain, any inter-table linkages, and literature related to the data or parameters in the fields. This database description will help users by increasing the transparency of the CBM-CFS3 and aiding those interested in modifying the AIDB to make it more applicable to forest ecosystems outside of Canada.

Résumé

Le modèle du bilan du carbone du secteur forestier canadien (MBC-SFS3), version 1.2, est un cadre de modélisation à l'échelle du peuplement et du paysage, qui peut être utilisé pour simuler la dynamique de tous les stocks de carbone forestier requis en vertu de la Convention-cadre des Nations Unies sur les changements climatiques et du Protocole de Kyoto. Il est conforme aux méthodes d'estimation du carbone décrites dans les lignes directrices du Groupe d'experts intergouvernemental sur les changements climatiques. Le modèle est distribué gratuitement à Ressources naturelles Canada et comprend un ensemble de paramètres et de données écologiques par défaut pour les forêts du Canada, qui peuvent être modifiés par l'utilisateur, permettant l'application du modèle dans d'autres pays. La base de données Microsoft Access contenant ces paramètres et ces données s'appelle la Base de données de l'index des archives (BDIA). La BDIA contient plus de 70 tables, ayant chacune un nombre variable de champs remplis de différents types de données et de paramètres. Ce rapport décrit les tables de la base de données et leur pertinence dans le modèle, les champs qu'ils contiennent, les liens entre les tables et la littérature relative aux données ou aux paramètres dans les champs. Cette description de la base de données aidera les utilisateurs en augmentant la transparence du MBC-SFS3 et en aidant les personnes intéressées à modifier la BDIA afin de la rendre plus facilement applicable aux écosystèmes forestiers à l'extérieur du Canada.

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Table describing the parameters available in the Archive Index Database of the Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) (gray shaded cells indicate table names in the database that should not be modified by users; cells for matching and linked field names in different sections of the table are shaded the same color)..... 2

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Overview

The Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) incorporates a database called the Archive Index Database (AIDB), which houses all of the Canadian default ecological names, data, and parameters used by the model. When the model is installed on a computer, four versions of the AIDB are installed, one for the English-language graphic user interface (GUI), called Archive_Index_Beta_Install.mdb; one for the French-language GUI, called Archive_Index_Beta_Install_fr.mdb; one for the Spanish-language GUI, called Archive_Index_Beta_Install_es.mdb; and one for the Russian-language GUI, called Archive_Index_Beta_Install_ru.mdb.

Model users who want to replace the Canadian parameters with parameters for their own setting can do so through the CBM-CFS3 GUI. However, the effects of such modifications are usually limited to the CBM-CFS3 project at hand, and when the user creates a new project, the same modifications must be applied in the new project. International users who plan frequent and long-term use of the model, and who want to change the model's Canadian defaults, will be better served by creating their own AIDB and populating it with their own names and data. For example, if users plan to use the English version of the AIDB, they should modify and rename the Archive_Index_Beta_Install.mdb file, and if they plan to use the Spanish version, they should modify and rename the Archive_Index_Beta_Install_es.mdb file. Parameters available for modification (and some that are active but not available for modification, i.e., table names shaded gray) are in the table describing the parameters available in the Archive Index Database of the Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3). Any tables encountered in the AIDB but not listed in the table in this document, are obsolete; they will be removed from future versions of the model. The figure displays a flow diagram of all of the tables represented and identifies record and/or parameter relationships between tables (if any).

Any modified AIDB should be placed in C:\Program Files\Operational-Scale CBM-CFS3\Admin\DBs (or, for 64-bit operating systems, C:\Program Files (x86)\Operational-Scale CBM-CFS3\Admin\DBs). When the user opens the CBM-CFS3 in the selected language, it will be necessary to connect the model to the AIDB in the Project Manager window (see note on selecting an AIDB in section 2.4 of Kull et al. [2016]). It is recommended that users add new disturbance types to their AIDB via the Default Input Data Editor in the CBM-CFS3 (instead of doing so manually within their modified AIDB), as this process establishes all of the proper database table connections between the disturbance types, disturbance matrices, administrative boundaries, and ecological boundaries. Users with questions about modifying the AIDB, as well as those who want to add a new GUI language to the model, should contact the Canadian Forest Service carbon accounting team for guidance (nrcan.cbm-mbc.rncan@canada.ca).

Table describing the parameters available in the Archive Index Database of the Carbon Budget Model of the Canadian Forest Sector (CBM-CFS3) (gray-shaded cells indicate table names in the database that should not be modified by users; cells for matching and linked field names in different sections of the table are shaded with the same color)

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblAdminBoundaryDefault	This table is important to users who want to set up their own administrative boundaries in the CBM-CFS3	AdminBoundaryID	Identification number for an administrative boundary	Not applicable	Not applicable
		AdminBoundaryName	Name of the administrative boundary (state, province, management unit, etc.)	Not applicable	Not applicable
		SoftwoodTopProportion	Percentage of softwood (conifer) tops associated with this administrative boundary	Not applicable	See Appendix 2 in Kull et al. (2016)
		SoftwoodStumpProportion	Percentage of softwood (conifer) stumps associated with this administrative boundary	Not applicable	See Appendix 2 in Kull et al. (2016)
		HardwoodTopProportion	Percentage of hardwood (broadleaf) tops associated with this administrative boundary	Not applicable	See Appendix 2 in Kull et al. (2016)
		HardwoodStumpProportion	Percentage of hardwood (broadleaf) stumps associated with this administrative boundary	Not applicable	See Appendix 2 in Kull et al. (2016)
tblAfforestationPreTypeDefault	This table is important to users who want to set up their own nonforest soil types in the CBM-CFS3	PreTypeID	Identification number for a nonforest soil type	Not applicable	Not applicable
		Name	Name of the nonforest soil type	Not applicable	Not applicable
		Description	Description of the nonforest soil type	Not applicable	Not applicable
tblBiomassComponent	This table is important to users who want to translate biomass component names	BiomassID	Identification number for a biomass component	Not applicable	Not applicable
		BiomassComponentName	Name of the biomass component	Not applicable	Not applicable
tblBiomassToCarbonDefault	This table is important to users who want to change the standard 0.5 value for biomass-to-carbon conversion	BiomassID	Identification number for a biomass component	Not applicable	Not applicable
		Softwood	A check mark indicates that the associated multiplier for conversion of biomass to carbon represents softwood; no check mark indicates that it represents hardwood	Not applicable	Not applicable
		Multiplier	Multiplier value used to convert biomass to carbon	Not applicable	Not applicable
tblBiomassToHeightParameterDefault	This table is used by the Canadian Forest Service carbon accounting team	SPUID	Identification number for a spatial unit	Not applicable	Not applicable
		B1, B2	Statistical model parameters	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblBioTotalStemwoodForestTypeDefault	This table is important to users who plan to import forest types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each forest type to prevent unusual biomass values	DefaultSPUID	Identification number for a spatial unit	tblSPUDefault	Not applicable
		DefaultForestTypeID	Identification number for a forest type	tblForestTypeDefault	Not applicable
		A, B	Total stem wood biomass estimation: nonlinear parameters fit separately for each combination of jurisdiction, ecozone, and forest type	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a_nonmerch, b_nonmerch, k_nonmerch	Nonmerchantable expansion factors: biomass model parameters fit separately for each combination of jurisdiction, ecozone, and forest type	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		cap_nonmerch	Upper limit on nonmerchantable expansion factor	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a_sap, b_sap, k_sap	Sapling expansion factors: biomass model parameters fit separately for each combination of jurisdiction, ecozone, and forest type	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		cap_sap	Upper limit on sapling expansion factor	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a1, a2, a3	Stem bark proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and forest type	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		b1, b2, b3	Branch bark proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and forest type	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		c1, c2, c3	Foliage proportion: model parameters fit separately for each combination of jurisdiction, ecozone, and forest type	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		min_volume	Minimum merchantable volume observed in plots used to fit equations	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		max_volume	Maximum merchantable volume observed in plots used to fit equations	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblBioTotalStemwoodForestTypeDefault (continued)	This table is important to users who plan to import forest types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each forest type to prevent unusual biomass values	low_stemwood_prop	Lower proportion limit for stem wood, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_stemwood_prop	Upper proportion limit for stem wood, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_stembark_prop	Lower proportion limit for stem bark, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_stembark_prop	Upper proportion limit for stem bark, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_branches_prop	Lower proportion limit for branches, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_branches_prop	Upper proportion limit for branches, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_foliage_prop	Lower proportion limit for foliage, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_foliage_prop	Upper proportion limit for foliage, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
tblBioTotalStemwoodGenusDefault	This table is important to users who plan to import genus types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each genus to prevent unusual biomass values	DefaultSPUID	Identification number for a spatial unit	tblSPUDefault	Not applicable
		DefaultGenusID	Identification number for a genus	tblGenusType	Not applicable
		A, B	Total stem wood biomass estimation: nonlinear parameters fit separately for each combination of jurisdiction, ecozone, and genus	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblBioTotalStemwoodGenusDefault (continued)	This table is important to users who plan to import genus types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each genus to prevent unusual biomass values	a_nonmerch, b_nonmerch, k_nonmerch	Nonmerchantable expansion factors: biomass model parameters fit separately for each combination of jurisdiction, ecozone, and genus	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		cap_nonmerch	Upper limit on nonmerchantable expansion factor	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a_sap, b_sap, k_sap	Sapling expansion factors: biomass model parameters fit separately for each combination of jurisdiction, ecozone, and predominant genus	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		cap_sap	Upper limit on sapling expansion factor	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a1, a2, a3	Stem bark proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and genus	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		b1, b2, b3	Branch bark proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and genus	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		c1, c2, c3	Foliage proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and genus	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		min_volume	Minimum merchantable volume observed in plots used	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		max_volume	Maximum merchantable volume observed in plots used	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_stemwood_prop	Lower proportion limit for stem wood, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_stemwood_prop	Upper proportion limit for stem wood, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblBioTotalStemwoodGenusDefault (continued)	This table is important users who plan to import genus types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each genus to prevent unusual biomass values	low_stembark_prop	Lower proportion limit for stem bark, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_stembark_prop	Upper proportion limit for stem bark, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_branches_prop	Lower proportion limit for branches, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_branches_prop	Upper proportion limit for branches, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_foliage_prop	Lower proportion limit for foliage, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_foliage_prop	Upper proportion limit for foliage, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
tblBioTotalStemwoodSpeciesTypeDefault	This table is important to users who plan to import species types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each lead species to prevent unusual biomass values	DefaultSPUID	Identification number for a spatial unit	tblSPUDefault	Not applicable
		DefaultSpeciesTypeID	Identification number for a species type	tblSpeciesTypeDefault	Not applicable
		A, B	Total stem wood biomass estimation: nonlinear parameters fit separately for each combination of jurisdiction, ecozone, and lead tree species	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a_nonmerch, b_nonmerch, k_nonmerch	Nonmerchantable expansion factors: biomass model parameters fit separately for each combination of jurisdiction, ecozone, and lead tree species	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		cap_nonmerch	Upper limit on nonmerchantable expansion factor	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblBioTotalStemwoodSpeciesTypeDefault (continued)	This table is important to users who plan to import species types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each lead species to prevent unusual biomass values	a_sap, b_sap, k_sap	Sapling expansion factors: biomass model parameters fit separately for each combination of jurisdiction, ecozone, and lead tree species	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		cap_sap	Upper limit on sapling expansion factor	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		a1, a2, a3	Stem bark proportions model parameters fit separately for each combination of jurisdiction, ecozone, and lead tree species	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		b1, b2, b3	Branch bark proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and lead tree species	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		c1, c2, c3	Foliage proportions: model parameters fit separately for each combination of jurisdiction, ecozone, and lead tree species	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		min_volume	Minimum merchantable volume observed in plots used	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
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		high_stemwood_prop	Upper proportion limit for stem wood, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_stembark_prop	Lower proportion limit for stem bark, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_stembark_prop	Upper proportion limit for stem bark, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblBioTotalStemwoodSpeciesTypeDefault (continued)	This table is important to users who plan to import species types into the CBM-CFS3 and want to apply their own volume-to-biomass coefficients; coefficients should be modified as a group for each lead species to prevent unusual biomass values	low_branches_prop	Lower proportion limit for branches, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_branches_prop	Upper proportion limit for branches, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		low_foliage_prop	Lower proportion limit for foliage, equivalent to expected factors associated with the minimum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
		high_foliage_prop	Upper proportion limit for foliage, equivalent to expected factors associated with the maximum volume	Not applicable	Boudewyn et al. (2007); Canada's National Forest Inventory (2015)
tblCBMRun	This table is auto-populated by the CBM-CFS3	CBMRunID	Identification number assigned to a CBM-CFS3 simulation assumption execution	Not applicable	Not applicable
		Name	Name of the simulation assumption executed	Not applicable	Not applicable
		Description	Description of the simulation assumption executed	Not applicable	Not applicable
		Author	Name of the person who executed the simulation assumption	Not applicable	Not applicable
		Status	Modeling status of the simulation assumption (0 = completed, 1 = in progress, 2 = queued for processing)	tblStatus	Not applicable
		StartedAt	Date and time when the simulation assumption was executed	Not applicable	Not applicable
		CompletedAt	Date and time when the simulation assumption was completed	Not applicable	Not applicable
		ClientID	Identification number for the client	Not applicable	Not applicable
		InputDBID	Identification number for the project (input) database used	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblCBMRun (continued)	This table is auto-populated by the CBM-CFS3	InputCBMRunID	Identification number for the input database CBM Run Assumption	Not applicable	Not applicable
		CBMVersionID	Identification number for the CBM-CFS3 version	tblCBMVersion	Not applicable
tblCBMVersion	This table is auto-populated by the CBM-CFS3	CBMVersionID	Identification number for the CBM-CFS3 version	Not applicable	Not applicable
		Name	Name of the CBM-CFS3 version	Not applicable	Not applicable
		Description	Description of the CBM-CFS3 version	Not applicable	Not applicable
		Type	Type of the CBM-CFS3 version (0 = Canada, 1 = pre-2015 British Columbia)	Not applicable	Not applicable
		Version	CBM-CFS3 version number obtained from an internal CFS concurrent version system (CVS)	Not applicable	Not applicable
		ExecutableFileName	Name of the CBM-CFS3 executable file	Not applicable	Not applicable
		ExecutablePath	Path identifying the location of the CBM-CFS3 executable file	Not applicable	Not applicable
tblClimateDefault	This table is important to users who want to enter their own climate data into the model, especially if they have added new spatial units; each spatial unit should have at least two associated mean annual temperature and mean annual total precipitation values, one for the initialization period and one for the simulation period	DefaultSPUID	Identification number for a spatial unit	tblSPUDefault	Not applicable
		Year	The required year 0 value represents the Makelist soil carbon pool initialization spin-up period, and the required year 1 value represents the entire simulation period, unless more optional year values are entered	Not applicable	Not applicable
		MeanAnnualTemp	Mean annual temperature, in degrees Celsius	Not applicable	Not applicable
		MeanAnnualPrecip	Mean annual total precipitation, in millimetres (not currently used by the CBM-CFS3)	Not applicable	Not applicable
tblColumnMapping	This table is auto-populated by the CBM-CFS3	ColumnMappingID	Identification number for the column mapping	Not applicable	Not applicable
		RecSourceRuleID	Identification number for the record source rule	tblRecSourceRule tblRepFieldsRule	Not applicable
		ArrayElementID	Identification number for the array element	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblColumnMapping (continued)	This table is auto-populated by the CBM-CFS3	DestinationFieldID	Identification number for a field in the destination table where data are to be inserted	Not applicable	Not applicable
		DestinationFieldTypeID	Identification number for the field type in the destination table	Not applicable	Not applicable
		IsChildTableField	A check mark indicates that the column is destined to be a column in the child table	Not applicable	Not applicable
tblDisturbanceTypeDefault	This table is important to users who want to edit existing disturbance types or add their own; if users plan to add new disturbance types to the model, it is recommended that they do so through the CBM-CFS3 interface in the Default Input Data Editor as this method will ensure all of the relevant tables in the AIDB are properly linked and populated with relevant information for the new disturbance type	DistTypeID	Identification number for a disturbance type	Not applicable	Not applicable
		DistTypeName	Name of the disturbance type	Not applicable	Not applicable
		OnOffSwitch	A check mark indicates that the disturbance type is available for inclusion in projects	Not applicable	Not applicable
		Description	Description of the disturbance type	Not applicable	Kull et al. (2016)
		IsStandReplacing	A check mark indicates that the disturbance type replaces a stand and returns it to age 0	Not applicable	Not applicable
		IsMultiYear	A check mark indicates that the disturbance type occurs in sequential-year groupings	Not applicable	Not applicable
		MultiYearCount	Maximum number of years of impacts associated with a multiyear disturbance	Not applicable	Not applicable
tblDM	This table is important to users who want to edit existing disturbance matrices or add their own; if users plan to add new disturbance matrices to the model, it is recommended that they do so through the CBM-CFS3 interface in the Disturbance Matrix Editor, when triggered by the addition of a new disturbance type in the Default Input Data Editor	DMID	Identification number for a disturbance matrix	Not applicable	Kull et al. (2016)
		Name	Name of the disturbance matrix	Not applicable	Not applicable
		Description	Description of the disturbance matrix	Not applicable	Not applicable
		DMStructureID	Identification number for the disturbance matrix structure, indicating the number of rows and columns in the matrix	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblDMAssociationDefault	This table is important to users who want to edit existing disturbance matrices or add their own; if users plan to add new disturbance matrices to the model, it is recommended that they do so through the CBM-CFS3 interface in the Disturbance Matrix Editor, when triggered by the addition of a new disturbance type in the Default Input Data Editor (note: this table is for disturbance matrices that are ecozone-specific only)	DefaultDisturbanceTypeID	Identification number for a disturbance type	tblDisturbanceTypeDefault	Not applicable
		DefaultEcoBoundaryID	Identification number for an ecozone boundary	tblEcoBoundaryDefault	Not applicable
		AnnualOrder	Value representing the sequential year in which a disturbance type coded as "multiyear" will occur; disturbances that are not coded as "multiyear" have a default value of 1	Not applicable	Not applicable
		DMID	Identification number for a disturbance matrix	tblDM	Not applicable
		Name	Name of the disturbance matrix and ecozone association	Not applicable	Not applicable
		Description	Description of the disturbance matrix and ecozone association	Not applicable	Not applicable
tblDMAssociationSPUDefault	TThis table is important to users who want to edit existing disturbance matrices or add their own; if users plan to add new disturbance matrices to the model, it is recommended that they do so through the CBM-CFS3 interface in the Disturbance Matrix Editor, when triggered by the addition of a new disturbance type in the Default Input Data Editor (note: this table is for disturbance matrices that are for default spatial units only)	DefaultDisturbanceTypeID	Identification number for a disturbance type	tblDisturbanceTypeDefault	Kull et al. (2016)
		SPUID	Identification number for a spatial unit	tblSPUDefault	Not applicable
		AnnualOrder	Value representing the sequential year in which a disturbance type coded as "multiyear" will occur; disturbances that are not coded as "multiyear" will have a default value of 1	Not applicable	Not applicable
		DMID	Identification number for a disturbance matrix	tblDM	Not applicable
		Name	Name of the disturbance matrix and SPU association	Not applicable	Not applicable
		Description	Description of the disturbance matrix and SPU association	Not applicable	Not applicable
tblDMValuesLookup	This table is important tousers who want to edit existing disturbance matrices or add their own; if users plan to add new disturbance matrices to the model, it is recommended that they do so through the CBM-CFS3 interface in the Disturbance Matrix Editor, when triggered by the addition of a new disturbance type in the Default Input Data Editor	DMID	Identification number for a disturbance matrix	tblDM	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblDMValuesLookup (continued)	This table is important to users who want to edit existing disturbance matrices or add their own; if users plan to add new disturbance matrices to the model, it is recommended that they do so through the CBM-CFS3 interface in the Disturbance Matrix Editor, when triggered by the addition of a new disturbance type in the Default Input Data Editor	DMRow	Row number of the disturbance matrix representing a carbon pool (1–25)	Not applicable	See Figure 6-16 and Table 6-2 in Kull et al. (2016) for row-pool name associations
		DMColumn	Column number of the disturbance matrix representing a carbon pool (1–25)	Not applicable	See Figure 6-16 and Table 6-2 in Kull et al. (2016) for column-pool name associations
		Proportion	Proportion of carbon transferred from the carbon pool represented by the DMRow number to the carbon pool represented by the DMColumn number as a result of the disturbance matrix indicated by the DMID	Not applicable	Not applicable
tblDOMParametersDefault	This table is important to users who want to permanently change the decay parameters related to dead organic matter pools	SoilPoolID	Identification number for a soil pool	Each SoilPoolID is displayed in the same order as the soil pool names in Appendix 4 in Kull et al. (2016)	Kurz et al. (2009)
		OrganicMatterDecayRate	Annual base decay rate of organic matter at the specified reference temperature	Not applicable	Kurz et al. (2009), Smyth et al. (2009), Smyth and Kurz (2013)
		ReferenceTemp	Mean annual temperature for the base decay rate, used as a reference point for application of q10	Not applicable	Kurz et al. (2009), Smyth et al. (2009), Smyth and Kurz (2013)
		q10	Parameter used to modify organic matter decay rates in response to mean annual temperature	Not applicable	Kurz et al. (2009), Smyth et al. (2009), Smyth and Kurz (2013)
		MaxDecayRate_soft	Maximum decay rate value that can be used for softwood dead organic matter pools	Not applicable	Not applicable
		MaxDecayRate_hard	Maximum decay rate value that can be used for hardwood dead organic matter pools	Not applicable	Not applicable
		PropToAtmosphere	Proportion of carbon decayed from the selected dead organic matter pool that transfers to the atmosphere	Not applicable	Kurz et al. (2009), Smyth et al. (2009), Smyth and Kurz (2013)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblEcoBoundaryDefault	This table is important to users who want to set up their own ecological boundaries in the CBM-CFS3	EcoBoundaryID	Identification number for an ecozone boundary	Not applicable	Not applicable
		EcoBoundaryName	Name of the ecozone boundary	Not applicable	Not applicable
		AverageAge	Average stand age associated with stand-replacing disturbances for the ecozone; used by Makelist as the historic disturbance interval	Not applicable	Kurz et al. (2009)
		SoftwoodFoliageFallRate	Annual rate at which carbon in softwood (conifer) foliage transfers to the aboveground very fast pool	Not applicable	Kurz et al. (2009)
		HardwoodFoliageFallRate	Annual rate at which carbon in hardwood (broadleaf) foliage transfers to the aboveground very fast pool	Not applicable	Kurz et al. (2009)
		StemAnnualTurnOverRate	Annual rate at which carbon in stem wood transfers to the snag stems pool	Not applicable	Kurz et al. (2009)
		SoftwoodBranchTurnOverRate	Annual rate at which carbon in the softwood (conifer) Other pool transfers to the snag branch and aboveground fast pools	Not applicable	Kurz et al. (2009)
		HardwoodBranchTurnOverRate	Annual rate at which carbon in the hardwood (broadleaf) Other pool transfers to the snag branch and aboveground fast pools	Not applicable	Kurz et al. (2009)
		AverageDOM	Obsolete field no longer used by the CBM-CFS3	Not applicable	Not applicable
		DecayMult	Average decay multiplier	Not applicable	Not applicable
		SoftwoodStemSnagToDOM	Annual rate at which carbon transfers from the softwood Stem Snag pool to the medium pool	Not applicable	Kurz et al. (2009), Hilger et al. (2012)
		HardwoodStemSnagToDOM	Annual rate at which carbon transfers from the hardwood stem snag pool to the medium pool	Not applicable	Kurz et al. (2009), Hilger et al. (2012)
		SoftwoodBranchSnagToDOM	Annual rate at which carbon transfers from the softwood branch snag pool to the fast aboveground pool	Not applicable	Kurz et al. (2009)
		HardwoodBranchSnagToDOM	Annual rate at which carbon transfers from the hardwood branch snag pool to the fast aboveground pool	Not applicable	Kurz et al. (2009)

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblForestTypeDefault	This table is important to users who want to modify existing forest type names in the model or add new forest types; if users plan to add new forest types to the model, it is recommended that they do so through the CBM-CFS3 interface in the Default Input Data Editor and attribute to each of the new forest types a fake Canadian Forest Inventory (CanFI) code value that is not already associated with a forest type, genus, or tree species	ForestTypeID	Identification number for a forest type	tblForestTypeDefault	Not applicable
		ForestTypeName	Name of the forest type	Not applicable	Not applicable
		CanFI_Code	Canadian Forest Inventory code associated with the forest type	Not applicable	See Appendix 8 in Kull et al. 2016
tblGenusTypeDefault	This table is important to users who want to modify existing genus type names in the model or add new genus types; if users plan to add new genus types to the model, it is recommended that they do so through the CBM-CFS3 interface in the Default Input Data Editor and attribute a fake CanFI code value; use a code value that is not already associated with a forest type, genus, or tree species	GenusID	Identification number for a genus type	Not applicable	Not applicable
		GenusName	Name of the genus type	Not applicable	Not applicable
		CanFI_Code	Canadian Forest Inventory code associated with the genus type	Not applicable	See Appendix 8 in Kull et al. 2016
tblGrowthMultiplierDefault	This table is used by the Canadian Forest Service carbon accounting team for sensitivity analyses	DefaultEcoBoundaryID	Identification number for an ecozone boundary	tblEcoBoundaryDefault	Not applicable
		DefaultDisturbanceTypeID	Identification number for a disturbance type	Not applicable	Not applicable
		DefaultSpeciesTypeID	Identification number for a species type	tblSpeciesTypeDefault	Not applicable
		AnnualOrder	Value representing the sequential year in which a disturbance type coded as "multiyear" will occur; disturbances that are not coded as "multiyear" will have a default value of 1	Not applicable	Not applicable
		GrowthMultiplier	Growth multiplier associated with the combination of ecozone, disturbance type, and annual order, where the default is 1 for combinations having an annual order of 1; disturbance types coded as "multiyear" may have multiplier values	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblInput2OutputColMapping	This table is auto-populated by the CBM-CFS3	MappingID	Identification number for import template mapping	tblUserMappingInfo	Not applicable
		SourceColName	Name of the column in the input database table that is copied into the Run Results Database table	Not applicable	Not applicable
		DestinationColName	Name of the column in the Run Results Database to which the column in the input database will be copied	Not applicable	Not applicable
tblInputDB	This table stores information about a project connected in the Project Manager window of the CBM-CFS3	InputDBID	Identification number for a project input database	Not applicable	Not applicable
		Name	Name of the project input database	Not applicable	Not applicable
		Description	Description of the project input database (blank by default)	Not applicable	Not applicable
		Path	Operating system path where the database is located	Not applicable	Not applicable
		InputPermArchID	Identification number for the input database in the permanent archive	Not applicable	Not applicable
tblInputTable4RRDBTable	This table is auto-populated by the CBM-CFS3	MappingID	Identification number for import template mapping	tblUserMappingInfo	Not applicable
		RulesVersionID	Identification number for the rules version	tblRulesVersion	Not applicable
		TableNameInPreDB	Name of the table in the source database to be copied to the Run Results Database	Not applicable	Not applicable
		TableNameInPostDB	Name of the table in the post-transformation database	Not applicable	Not applicable
tblKP3334Flags	This table is a reference table of Kyoto Protocol flags; changes to this table will have no effect on CBM-CFS3 functionality or calculations	KP3334ID	Identification number for a Kyoto Protocol 3.3 or 3.4 flag	Not applicable	Not applicable
		Name	Name of the Kyoto Protocol 3.3 or 3.4 flag	Not applicable	Not applicable
		Description	Description of the Kyoto Protocol 3.3 or 3.4 flag	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblMakelistVersion	This table is auto-populated by the CBM-CFS3	MakelistVersionID	Identification number for a version of Makelist	Not applicable	Not applicable
		Name	Name of the version of Makelist	Not applicable	Not applicable
		Description	Description of the version of Makelist	Not applicable	Not applicable
		Type	Type of Makelist version (0 = Canada, 1 = pre-2015 British Columbia)	Not applicable	Not applicable
		Version	Makelist version number from an internal CFS concurrent version system (CVS)	Not applicable	Not applicable
		ExecutableFileName	Name of the Makelist executable file	Not applicable	Not applicable
		ExecutableFilePath	The operating system path where the Makelist executable file is located	Not applicable	Not applicable
tblNewDefaultSPUIDLookup	This table is auto-populated by the CBM-CFS3 following connection of a project that was created with version 1.0 or 1.1 of the CBM-CFS3	NewDefaultSPUID	New spatial unit identifier (SPUID) assigned to the project (based on the old SPUID)	Not applicable	Not applicable
		OldDefaultSPUID	SPUID that the user originally assigned to the project	Not applicable	Not applicable
tblOldToNewDistTypeMapping	This table is auto-populated by the CBM-CFS3 following connection of a project that was created with version 1.0 or 1.1 of the CBM-CFS3	NewDistTypeID	New disturbance type identifier assigned to the project (based on the old DistTypeID)	Not applicable	Not applicable
		OldDistTypeID	DistTypeID that the user originally included in the project	Not applicable	Not applicable
tblPermArchive	This table is auto-populated by the CBM-CFS3	PermArchID	Identification number for the permanent archive	Not applicable	Not applicable
		Name	Name of the permanent archive	Not applicable	Not applicable
		Description	Description of the permanent archive	Not applicable	Not applicable
		IsInput	A check mark indicates that the record refers to a database	Not applicable	Not applicable
tblProcessedSPU	This table is auto-populated by the CBM-CFS3	SimulationID	Identification number for a simulation	tblSimulation	Not applicable
		SPUID	Identification number for a spatial unit	Not applicable	Not applicable
		Processed	A check mark indicates that the simulation has been processed	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblRecSourceRule	This table is auto-populated by the CBM-CFS3	RecSourceRuleID	Identification number for a record source rule	Not applicable	Not applicable
		RulesVersionID	Identification number for the rules version	tblRulesVersion	Not applicable
		FileNamePattern	Name of the text file, database table, or stored procedure	Not applicable	Not applicable
		PostfixSQL	A structured query language (SQL) query where the first field's distinct values give each distinct postfix for the file name pattern; if there is no postfix, the field is blank	Not applicable	Not applicable
		AltFileNamePattern	Used only when a file is not postfixed	Not applicable	Not applicable
		ColumnsPerRecord	Number of data columns per record in a text file	Not applicable	Not applicable
		ParentTableName	Name of a destination table for single-table mapping	Not applicable	Not applicable
		LinesPerTextFileRec	Number of lines per text file record	Not applicable	Not applicable
		NumCRLFsBetweenRecs	Value defining the number of lines per record in a text file source: if the entire record is on a single line, the value is 0, and if the record needs 2 lines, the value is 1	Not applicable	Not applicable
		MultCRLFsOneDelim	Currently disabled		Not applicable
		TextFieldDelimID	Foreign key pointing to a field by the same name	tblTextFieldDelim	Not applicable
		DBEngineID	Foreign key pointing to a field by the same name	tblDBEngine	Not applicable
		SampleSourceDB	Name and path of a sample source database against which RecordSourceSQL could be applied	Not applicable	Not applicable
		RecordSourceSQL	SQL string that will return a record source conforming to all rules for the RecSourceRuleID	Not applicable	Not applicable
		FirstIndexOfClassifierValueID	Value used when reading a record to indicate the first index of classifiers in 10 consecutive fields	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblRepFieldsRule	This table is auto-populated by the CBM-CFS3	RecSourceRuleID	Identification number for a record source rule	tblRecSourceRule tblColMapping	Not applicable
		WritesToMultTables	A check mark indicates that data from the text file go into multiple tables	Not applicable	Not applicable
		NumParentPrimKeyFields	Value representing the number of primary key fields that are in the parent table	Not applicable	Not applicable
		ChildTableName	Name of the child table used for multitable mapping	Not applicable	Not applicable
		ForeignKeyFieldIDs	Ordinal number of each foreign key field in the child table	Not applicable	Not applicable
		FirstRepeatedArrayItem	Index of the first array item or column from the text record that belongs to a group of repeating columns	Not applicable	Not applicable
		ColumnsPerRepeat	Number of columns in each repeat group	Not applicable	Not applicable
		NumReps	Number of repeats per row	Not applicable	Not applicable
		RepKeyDataImplied	A check mark indicates that key values were obtained by implication	Not applicable	Not applicable
		RepKeyValuesSQL	SQL string that determines key values, with each key value having a repeat	Not applicable	Not applicable
		RepKeyFieldIDs	Value used to calculate the number of repeats per record	Not applicable	Not applicable
tblRulesVersion	This table is auto-populated by the CBM-CFS3	RulesVersionID	Identification number for the rules version	Not applicable	Not applicable
		Name	Name of the rules version	Not applicable	Not applicable
		Description	Description of the rules version	Not applicable	Not applicable
		RulesPurposeID	Identification number for the rules purpose	Not applicable	Not applicable
		CBMVersionID	Identification number for the CBM-CFS3 version	tblCBMVersion	Not applicable
		DatabaseVersion	Version of the database	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblSimulation	This table stores information about simulations in projects connected in the Project Manager window of the CBM-CFS3	SimulationID	Identification number for a simulation assumption	SimulationID	Not applicable
		Name	Name of the simulation assumption	Name	Not applicable
		Description	Description of the simulation assumption	Description	Not applicable
		Author	Author of the simulation assumption	Not applicable	Not applicable
		Status	Modeling status of the simulation assumption (0 = completed, 1 = in progress, 2 = queued for processing)	tblStatus	Not applicable
		StartedAt	Date and time when the simulation assumption was started	Not applicable	Not applicable
		CompletedAt	Date and time when the simulation assumption was completed	Not applicable	Not applicable
		StandInitializationID	Identification number for the stand initialization assumption linked to the simulation assumption	tblStandInitialization	Not applicable
		CBMRunID	Identification number for the CBM Run assumption linked to the simulation assumption	tblCBMRun	Not applicable
		InputSimulationID	Identification number for the simulation input	Not applicable	Not applicable
		InputDBID	Identification number for the input database	tblInputDB	Not applicable
		CBMInputFilesPath	Operating system path where the input files are located	Not applicable	Not applicable
		ResultsDBName	Name of the results database generated	Not applicable	Not applicable
		ResultsDBPath	Operating system path where the results database in located	Not applicable	Not applicable
		ResultsPermArchID	Identification number for the permanent results archive	Not applicable	Not applicable
		RulesVersionID	Identification number for the rules version	tblRulesVersion	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblSimulation (continued)	This table stores information about simulations in projects connected in the Project Manager window of the CBM-CFS3	AllSPUsProcessed	A check mark indicates that all spatial units were processed during the simulation	Not applicable	Not applicable
		IsArchived	A check mark indicates that the results have passed a quality control check and have been saved	Not applicable	Not applicable
		IsInCombinedArchive	A check mark indicates that the results have been added to a single large results database for forward compatibility	Not applicable	Not applicable
		YearInTimestep	Number of years in a time step (always 1)	Not applicable	Not applicable
tblSinkName	This table is important to users who want only to translate the carbon sink pool descriptions in disturbance matrices to another language	DMStructureID	Identification number for the disturbance matrix structure	Not applicable	Not applicable
		Column	Column number of a disturbance matrix representing a carbon pool (1–25)	Not applicable	Not applicable
		Description	Description of the disturbance matrix column number	Not applicable	Not applicable
tblSlowAGtoBGTransferRate	This table is important to users who want to permanently change the annual transfer rate of carbon from the aboveground slow dead organic matter pool to the belowground slow dead organic matter pool	SlowAGtoBGTransferRate	Value between 0 and 1 representing the fraction of the aboveground slow pool that transfers to the belowground slow pool each year	Not applicable	Not applicable
tblSourceName	This table is important to users who want only to translate the carbon source pool descriptions in disturbance matrices to another language	DMStructureID	Identification number for the disturbance matrix structure	Not applicable	Not applicable
		Row	Row number of a disturbance matrix representing a carbon pool (1–25)	Not applicable	Not applicable
		Description	Description of the disturbance matrix row number	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblSpeciesTypeDefault	This table is important to users who want to translate the names of existing tree species to another language, modify their associated parameters, or add new species and associated parameters; it is recommended that new species be added through the Default Input Data Editor window	SpeciesTypeID	Identification number for a species type	Not applicable	Not applicable
		SpeciesTypeName	Common or scientific name for a tree species	Not applicable	Not applicable
		ForestTypeID	Identification number for a forest type	tblForestTypeDefault	Not applicable
		GenusID	Identification number for a genus	tblGenusType	Not applicable
		CanFI_Code	Canadian Forest Inventory code associated with the forest type	Not applicable	Not applicable
		CoarseRootTurnProp	Proportion of coarse root biomass that transfers to the fast dead organic pools each year	Not applicable	Li et al. (2003), Kurz et al. (2009), Smyth et al. (2013)
		FineRootTurnPropIntercept	Intercept of the fine root turnover proportion	Not applicable	Li et al. (2003)
		FineRootTurnPropSlope	Slope of the fine root turnover proportion	Not applicable	Li et al. (2003)
		HwoodDecayMultiplier	Hardwood decay as a proportion of the softwood decay multiplier	Not applicable	Not applicable
		SlopeRootToTotal	Fine root turnover (currently disabled)	Not applicable	Li et al. (2003)
		InterceptRootToTotal	Intercept of fine roots (currently disabled)	Not applicable	Li et al. (2003)
		BranchesToBranchSnag	Proportion of the Other pool turnover that transfers to the branch snag pool each year	Not applicable	Kurz et al. (2009)
tblSPUDefault	This table is important to users who want to modify existing default spatial units or add new ones (including administrative and ecological boundaries) to the model	SPUID	Identification number for a spatial unit	Not applicable	Not applicable
		AdminBoundaryID	Identification number for the administrative boundary	tblAdminBoundaryDefault	Not applicable
		EcoBoundaryID	Identification number for an ecozone boundary	tblEcoBoundaryDefault	Not applicable
		MapSheetID	Identification number for the map sheet	Not applicable	Not applicable
		SPUOnOffSwitch	A check mark indicates that the SPUID number is available for application in projects (currently disabled)	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblStandInitialization	This table is auto-populated by the CBM-CFS3	StandInitializationID	Identification number for the stand initialization assumption	Not applicable	Not applicable
		Name	Name of the stand initialization assumption	Not applicable	Not applicable
		Description	Description of the stand initialization assumption	Not applicable	Not applicable
		Author	Author of the stand initialization assumption	Not applicable	Not applicable
		Status	Modeling status of the simulation assumption (0 = completed, 1 = in progress, 2 = queued for processing)	tblStatus	Not applicable
		StartedAt	Date and time when the simulation assumption was started	Not applicable	Not applicable
		CompletedAt	Date and time when the simulation assumption was completed	Not applicable	Not applicable
		ClientID	Identification number for the client	tblClient	Not applicable
		InputDBID	Identification number for the input database	tblInputDB	Not applicable
		InputStandInitializationID	Identification number for the stand initialization input	Not applicable	Not applicable
		MakelistVersionID	Identification number for the Makelist version	tblMakelistVersion	Not applicable
tblStandInitializationSPUStatus	This table is auto-populated by the CBM-CFS3	StandInitializationID	Identification number for the stand initialization assumption	tblStandInitialization	Not applicable
		SPUID	Identification number for the spatial unit	tblSPUDefault	Not applicable
		Status	Modeling status of the simulation assumption (0 = completed, 1 = in progress, 2 = queued for processing)	tblStatus	Not applicable
tblStatus	This table is important to users who want to translate simulation status names to another language	StatusID	Identification number for the status	Not applicable	Not applicable
		Name	Name of the status	Not applicable	Not applicable
		Description	Description of the status	Not applicable	Not applicable

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblSVLAttributesDefaultAfforestation	This table is important to users who want to permanently modify the initial biomass and dead organic matter carbon values associated with nonforest soil types (also known as "pre-types") or add records and values for new nonforest soil types	EcoBoundaryID	Identification number for an ecozone boundary	tblEcoBoundaryDefault	Not applicable
		AdminBoundaryID	Identification number for the administrative boundary	tblAdminBoundaryDefault	Not applicable
		PreTypeID	Identification number for each nonforest soil type	tblAfforestationPreTypeDefault	Not applicable
		GCID	Identification number for the growth curve (disabled)	Not applicable	Not applicable
		TotalBiomassCarbon	Total biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		SW_FoliageBiomassCarbon	Softwood foliage biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		SW_MerchantableBiomassCarbon	Softwood merchantable biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		SW_SubmerchantableBiomassCarbon	Softwood submerchantable biomass carbon (t/ha) associated with a nonforest soil type (currently disabled)	Not applicable	Not applicable
		SW_OtherBiomassCarbon	Softwood "Other" biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		SW_CoarseRootBiomassCarbon	Softwood coarse root biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		SW_FineRootBiomassCarbon	Softwood fine root biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		HW_FoliageBiomassCarbon	Hardwood foliage biomass carbon ((t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		HW_MerchantableBiomassCarbon	Hardwood merchantable biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		HW_SubmerchantableBiomassCarbon	Hardwood submerchantable biomass carbon (t/ha) associated with a nonforest soil type (currently disabled)	Not applicable	Not applicable
		HW_OtherBiomassCarbon	Hardwood "Other" biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable

Table continued

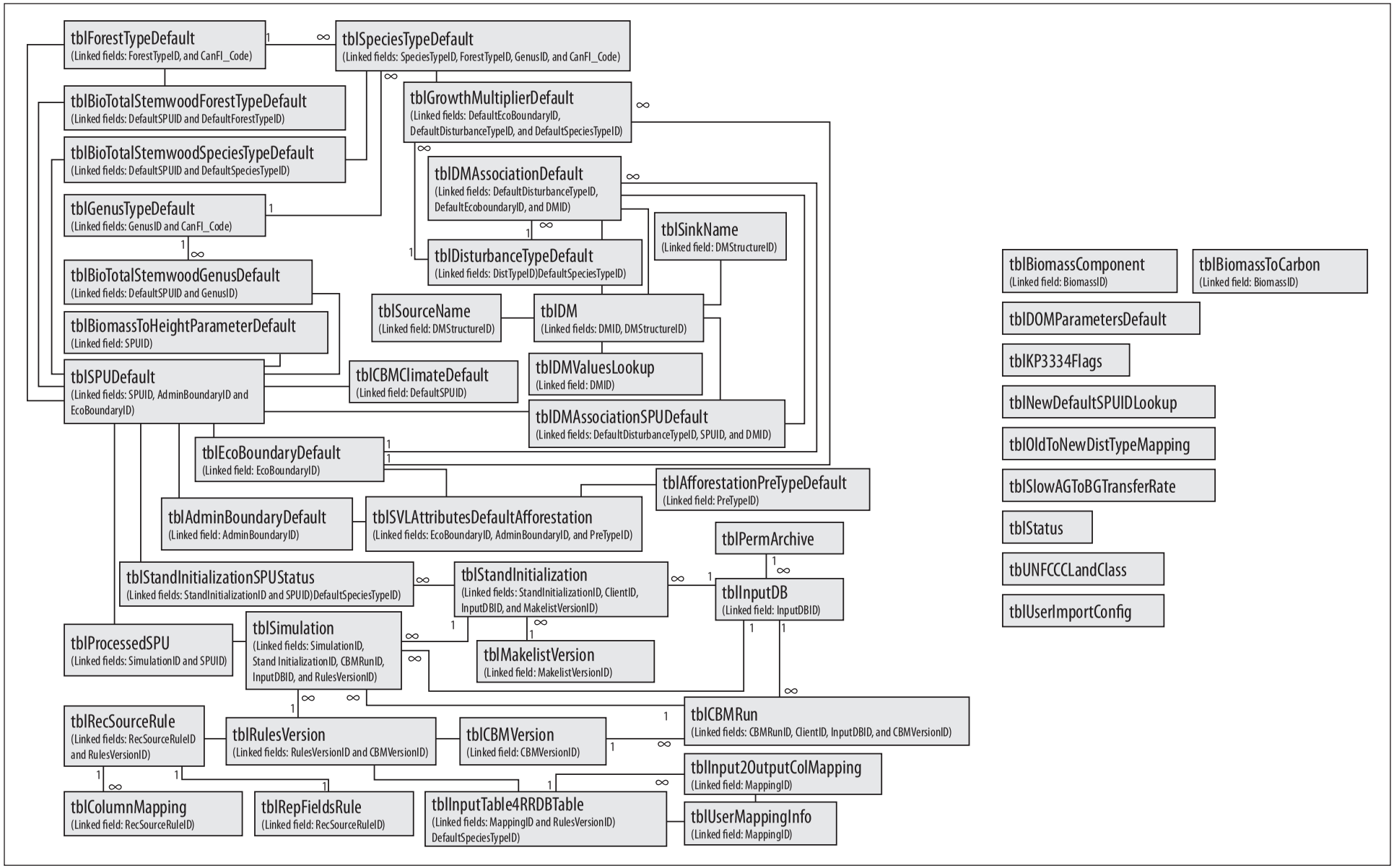
Table name	Table relevance	Field name	Description	Source table links	Related literature
tblSVLAttributesDefaultAfforestation (continued)	This table is important to users who want to permanently modify the initial biomass and dead organic matter carbon values associated with nonforest soil types (also known as "pre-types") or add records and values for new nonforest soil types	HW_CoarseRootBiomassCarbon	Hardwood coarse root biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		HW_FineRootBiomassCarbon	Hardwood fine root biomass carbon (t/ha) associated with a nonforest soil type	Not applicable	Not applicable
		CreationDisturbance	By default, contains a value of 0 indicating that there is no disturbance to initialize the nonforest carbon pools	Not applicable	Not applicable
		TotalSoilPoolCarbon	Total amount of carbon (t/ha) in the mineral soil to a 100 cm depth	Not applicable	Not applicable
		VFSoilPoolC_AG	Carbon ((t/ha) in the Very Fast Aboveground soil pool	Not applicable	Kull et al. 2016
		VFSoilPoolC_BG	Carbon (t/ha) in the Very Fast Belowground soil pool	Not applicable	Kull et al. 2016
		FSoilPoolC_AG	Carbon (t/ha) in the Fast Aboveground pool	Not applicable	Kull et al. 2016
		FSoilPoolC_BG	Carbon (t/ha) in the Fast Belowground pool	Not applicable	Kull et al. 2016
		MSoilPoolC	Carbon (t/ha) in the Medium pool	Not applicable	Kull et al. 2016
		SSoilPoolC_AG	Carbon (t/ha) in the Slow Aboveground pool	Not applicable	Kull et al. 2016
		SSoilPoolC_BG	Carbon (t/ha) in the Slow Belowground soil pool (use a value of 0 if a value other than 0 was entered in the TotalSoilPoolCarbon field)	Not applicable	Kull et al. 2016
		StemSnagPoolC_SW	Carbon (t/ha) in the Softwood Stem Snag pool	Not applicable	Kull et al. 2016
		BranchSnagPoolC_SW	Carbon (t/ha) in the Softwood Branch Snag pool	Not applicable	Kull et al. 2016
		StemSnagPoolC_HW	Carbon (t/ha) in the Hardwood Stem Snag pool	Not applicable	Kull et al. 2016
		BranchSnagPoolC_HW	Carbon (t/ha) in the Hardwood Branch Snag pool	Not applicable	Kull et al. 2016
		BlackCPoolC	Carbon (t/ha) in the Black Carbon soil pool (value is 0 and currently not used by default; if a value greater than zero is entered, review the default decay parameters associated with this pool and adjust if necessary, and add transfers into and out of this pool as required in any applicable disturbance matrices)	Not applicable	Kull et al. 2016
		PSoilPoolC	Carbon (t/ha) in the Peat soil pool (currently disabled)	Not applicable	Kull et al. 2016

Table continued

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblUNFCCCLandClass	This table is important to users who want to permanently translate the United Nations Framework Convention on Climate Change (UNFCCC) land class names to another language	UNFCCCLandClassID	Identification number for a UNFCCC land class to another language	Not applicable	Not applicable
		Name	Name of the UNFCCC land class	Not applicable	Not applicable
tblUserImportConfig	This table, which is auto-populated by the CBM-CFS3, is used by the CBM Standard Import Tool to store the file paths of previous import files so that they may be reused	ConfigID	Identification number for the configuration	Not applicable	Not applicable
		ConfigName	Name of the configuration	Not applicable	Not applicable
		isText	A check mark indicates that the import data are in .txt file format	Not applicable	Not applicable
		BasePath	Operating system path to where the import file is located	Not applicable	Not applicable
		DBName	Name of the import database file	Not applicable	Not applicable
		AgeClasses	Name of the import file table representing age classes	Not applicable	Not applicable
		DistTypes	Name of the import file table representing disturbance types	Not applicable	Not applicable
		Classifiers	Name of the import file table representing classifiers	Not applicable	Not applicable
		Inventory	Name of the import file table representing forest inventory	Not applicable	Not applicable
		Yields	Name of the import file table representing growth and yield curves	Not applicable	Not applicable
		Transitions	Name of the import file table representing transition rules	Not applicable	Not applicable
		DistEvents	Name of the import file table representing disturbance events	Not applicable	Not applicable
		DistEligibilities	Name of the import file table representing disturbance eligibilities (obsolete)	Not applicable	Not applicable

Table concluded

Table name	Table relevance	Field name	Description	Source table links	Related literature
tblUserMappingInfo	This table, which is auto-populated by the CBM-CFS3, is used by the CBM Standard Import Tool to store species, spatial unit, disturbance, and nonforest mapping selections so that they may be reused	MappingID	Identification number for import template mapping	Not applicable	Not applicable
		MappingName	Name for the import template mapping	Not applicable	Not applicable
		MappingFilePath	Operating system path to where the import template mapping file is located	Not applicable	Not applicable
		MappingFileName	Name of the import template mapping file	Not applicable	Not applicable



Flow diagram of the tables in the Archive Index Database of the CBM-CFS3. Connecting lines between tables either identify with symbols, where a relationship of one (1) record in one table is linked to many records (∞) in the connected table, or where two tables share one of more common parameters and parameter values (no symbols on connecting line). Tables without connecting lines contain stand-alone parameters and data used by the CBM-CFS3.

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