

Land Information Ontario Data Description

Forest Genetics Site

Disclaimer

This technical documentation has been prepared by the Ministry of Natural Resources (the “Ministry”), representing Her Majesty the Queen in right of Ontario. Although every effort has been made to verify the information, this document is presented as is, and the Ministry makes no guarantees, representations or warranties with respect to the information contained within this document, either express or implied, arising by law or otherwise, including but not limited to, effectiveness, completeness, accuracy, or fitness for purpose. The Ministry is not liable or responsible for any loss or harm of any kind arising from use of this information.

Some of the information in this document is nonconvertible or has not yet been made accessible and may not be compatible with assistive technologies. If you need any of the information in an alternate format, please contact LIO Support at lio@ontario.ca or (705) 755-1878.

LIO Class Description

Forest Genetics Site

Class Short Name: FORGENE

Version Number: 1

Class Description:

Forest Genetics Site identifies areas designated for the study, conservation and improvement of tree species. These areas in conjunction with the application of other silvicultural activities (e.g. site preparation, fertilization, etc.) support and improve the overall yield, quality and sustainability of products from forest lands. Genetic conservation areas contribute to the understanding, management and conservation of adaptive variation and overall genetic diversity.

Abstract Class Name: SPMNTPOLY

Abstract Class

Description:

Spatial Multi-Non-Tessellating-Polygon: An object is represented by ONE or MORE polygons. Polygons may NOT overlap. HOLES within and GAPS between polygons ARE allowed. Example: the St. Lawrence Islands National Park, where the Park itself is made up of many islands.

Metadata URL:

Tables in LIO Class:
Forest Genetics Site

FOREST_GENETICS_SITE_FT

Forest Genetics Site identifies areas designated for the study, conservation and improvement of tree species. These areas in conjunction with the application of other silvicultural activities (e.g. site preparation, fertilization, etc.) support and improve the overall yield, quality and sustainability of products from forest lands. Genetic conservation areas contribute to the understanding, management and conservation of adaptive variation and overall genetic diversity.

Column Name	Column Type	Mandatory	Short Name	Valid Values
OGF_ID A unique numeric provincial identifier assigned to each object.	NUMBER(13,0)	Yes	OGF_ID	
SITE_TYPE The data class site subtype.	VARCHAR2(100)	Yes	SITE_TYPE	Breeding Orchard, Clonal Seed Orchard, Genetic Archive, Progeny Test, Provenance Test, Seedling Seed Orchard (See FOREST_GENETICS_SITE_TYPE_LIST table)
SITE_NAME The name of the site.	VARCHAR2(100)	No	SITE_NAME	
SITE_REFER_NUMBER Internal district or project number. May be the identifier stored in the Northeast Seed Management Association data base.	VARCHAR2(9)	No	REF_NUMBER	
SEED_SOURCE Identifying information for the seed source.	VARCHAR2(100)	No	SEED_SRC	
TREE_SPECIES_CODE A standard code that represents the tree species. For example, the code for Jack Pine is "Pj".	VARCHAR2(3)	No	SP_CODE	AL, AM, AX, Ab, Ag, Ap, ... (See FCU_TREE_SPECIES_LIST table)
ESTABLISHED_DATE Date installed or established. The date-time format consists of Year-Month-Day-Time so if only Year is known then the Month/Day/Time default to 01/01/00:00:00	DATE	No	ESTAB_DATE	
SITE_LOCATION Description of the area or directions on how to get to the site.	VARCHAR2 (2000)	No	LOCATION	
SITE_DESCR Detailed description of the forest genetics site.	VARCHAR2 (2000)	No	SITE_DESCR	
SITE_CONTACT Contact information for the group or individual acting in an official or professional capacity related to the existence, ongoing maintenance and operation of the site. May include name, title, email, telephone, etc.	VARCHAR2(254)	No	CONTACT	
GENERAL_COMMENTS General comments.	VARCHAR2 (2000)	No	COMMENTS	
LOCATION_ACCURACY	VARCHAR2(25)	Yes	ACCURACY	Not Applicable, Over 10,000 metres, Within 1 metre, Within 10 metres, Within 10,000 metres, Within 100

metres, ...
(See LOCATION_ACCURACY_LIST
table)

The degree of conformity or closeness of a measurement within the database to its true value in the world.
(LOCATION_ACCURACY_LIST)

SENSITIVITY_CLASS	VARCHAR2(15)	Yes	SENS_CLASS
The ranking of the sensitivity of the information embodied in the feature. Often wide-spread knowledge of the location of some rare aspect of our natural heritage will endanger it. On the other hand, this knowledge by some parties is also extremely important for its protection. Valid values include: Non-Sensitive, Low, Medium, and High. Non-Sensitive - data and information that does not fall into any of the three sensitivity levels. If disclosed will not result in any injury to individuals, government or private sector institutions (i.e. base data). Low - information generally available to employees and approved agents of the Crown. Refers to sensitive features within a data type not normally sensitive (i.e. specific instances of Pileated Woodpecker) Medium - information that is sensitive and intended for use only by specified groups of employees and approved agents of the Crown; for OLIW refers to information where the entire data type has been flagged as sensitive (i.e. Stick Nests for Vulnerable Threatened and Endangered (VTE) species) High - information that is extremely sensitive and intended for use by named individuals only; refers to information that could have negative impacts on human life or health if released. Currently no data classes meet this ranking.			
SENSITIVITY_DATE	DATE	Yes	SENS_DATE
The date that the sensitivity classification was established.			
SENSITIVITY_RATIONALE	VARCHAR2(50)	Yes	SENS_RAT
The primary reason for the information sensitivity classification. Valid values include: "VTE Species", "Data Provider Agreement", "No Restriction Needed" (for Non-Sensitive data), "Protect Feature Type", "Protect Single Feature", "Legislative or Legal Reqt", "Cultural Heritage Site", "Other". Note: For Species at Risk (SAR) features, please use "Legislative or Legal Reqt" as a rationale.			
SENS_RATIONALE_OTHER_DESCR	VARCHAR2(250)	No	SENS_DESCR
Description of the reason(s) for the information classification when "Other" is selected as the rationale.			
GEOMETRY_UPDATE_DATETIME	DATE	No	GEO_UPT_DT
Date/time the geometry was created or last modified in the source database.			
EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
Date/time the record was created or last modified in the source database.			
SHAPE	SDO_GEOMETRY	No	SHAPE
Geometry attribute.			

FCU_TREE_SPECIES_LIST

The list of standard tree species codes used in describing forest stands in Ontario.

Column Name	Column Type	Mandatory	Short Name	Valid Values
TREE_SPECIES_CODE	VARCHAR2 (3)	Yes	SP_CODE	
A standard code that represents the tree species. For example, the code for Jack Pine is "Pj".				
TREE_SPECIES_NAME	VARCHAR2 (60)	No	SP_NAME	
The common name of a standard tree species used in describing forest stands in Ontario. For example, White Birch.				
SCIENTIFIC_NAME	VARCHAR2 (100)	No	SCI_NAME	
The scientific name (Genus and Species) of the tree species (e.g., Populus tremuloides for Trembling Aspen). In some cases, only the scientific genus will be identified for a generic grouping of tree species (e.g., Populus spp).				
FRI_COLLECTION_IND	VARCHAR2 (3)	No	COLL_IND	Yes, No

A yes or no indicator whether a species identified in this collection is called for, or positively identified during interpretation, and is applicable to the Forest Resources Inventory (FRI).

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
---------------------------	------	-----	----------

Date/time the record was created or last modified in the source database.

EXPIRY_DATETIME	DATE	No	EXP_DATE
------------------------	------	----	----------

Date/time that the record was expired from use.

FOREST_GENETICS_SITE_TYPE_LIST

List of valid site (sub) types for the Forest Genetics data class

Column Name	Column Type	Mandatory	Short Name	Valid Values
-------------	-------------	-----------	------------	--------------

SITE_TYPE	VARCHAR2 (100)	Yes	SITE_TYPE
------------------	-------------------	-----	-----------

The data class site subtype.

SITE_TYPE_DESCR	VARCHAR2 (2000)	Yes	TYPE_DESCR
------------------------	--------------------	-----	------------

The detailed definition of the site sub-type.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
---------------------------	------	-----	----------

Date/time the record was created or last modified in the source database.

EXPIRY_DATETIME	DATE	No	EXP_DATE
------------------------	------	----	----------

Date/time that the record was expired from use.

LOCATION_ACCURACY_LIST

List of valid LOCATION_ACCURACYs.

Column Name	Column Type	Mandatory	Short Name	Valid Values
-------------	-------------	-----------	------------	--------------

LOCATION_ACCURACY	VARCHAR2 (25)	Yes	ACCURACY
--------------------------	------------------	-----	----------

The accuracy of the location of the feature at an OBM scale. The degree of conformity or closeness of a measurement to the true value.

EFFECTIVE_DATETIME	DATE	Yes	EFF_DATE
---------------------------	------	-----	----------

Date/time the record was created or last modified in the source database.

EXPIRY_DATETIME	DATE	No	EXP_DATE
------------------------	------	----	----------

Date/time that the record was expired from use.

LIO Lookup Table Values:
FCU_TREE_SPECIES_LIST

TREE SPECIES CODE	TREE SPECIES NAME	SCIENTIFIC NAME	FRI COLLECTION IND	EXPIRY DATETIME
AL	Alder, any or mixed	Alnus spp.	No	
AM	Mountain-Ash, any or mixed	Sorbus spp.	No	
AX	Ash, any or mixed	Fraxinus spp.	Yes	
Ab	Ash, Black	Fraxinus nigra	Yes	
Ag	Ash, Red (or Green)	Fraxinus pennsylvanica	No	
Ap	Ash, Pumpkin	Fraxinus profunda	No	
Aq	Ash, Blue	Fraxinus quadrangulata	No	
Aw	Ash, White	Fraxinus americana	Yes	
Bb	Blue-Beech (or American Hornbeam)	Carpinus caroliniana	No	
Bc	Birch, Cherry	Betula lenta	No	
Bd	Basswood	Tilia americana	Yes	
Be	Beech, American	Fagus grandifolia	Yes	
Bf	Fir, Balsam	Abies balsamea	Yes	
Bg	Birch, Grey	Betula populifolia	Yes	
Bl	Linden, Big Leaf	Tilia platyphyllos	No	
Bn	Butternut	Juglans cinerea	Yes	
Bp	Birch, European Weeping	Betula pendula	No	
Bw	Birch, White (or Paper)	Betula papyrifera	Yes	
By	Birch, Yellow	Betula alleghaniensis	Yes	
CE	Cedar, all	Thuja spp.	Yes	
CH	Cherry, any or mixed	Prunus, spp.	Yes	
Cat	Catalpa, Northern (or Bean-Tree)	Catalpa speciosa	No	
Cb	Cherry, Black	Prunus serotina	Yes	

Cc	Cherry, Choke	Prunus virginiana	No	
Cd	American Chestnut	Castanea dentata	Yes	
Cm	Cherry, Mazzard	Prunus avium	No	
Cp	Cherry, Pin (or Wild Red or Fire)	Prunus pensylvanica	No	
Cr	Cedar, Eastern Red (or Redcedar)	Juniperus virginiana	Yes	
Cs	Cherry, Sour	Prunus cerasus	No	
Ct	Cucumber Tree	Magnolia acuminata	No	
Cw	Cedar, Eastern White (or Northern White-Cedar)	Thuja occidentalis	Yes	
EX	Elm, any or mixed	Ulmus spp	Yes	
Ema	Mountain-Ash, European	Sorbus aucuparia	No	
Er	Elm, Red (or Slippery)	Ulmus rubra	No	
Eu	Elm, Rock	Ulmus thomasii	No	
Ew	Elm, White (or American)	Ulmus americana	Yes	
Gb	Black Gum	Nyssa sylvatica	No	
Gt	Locust, Honey	Gleditsia triacanthos	No	
Haz	Witch-Hazel, American	Hamamelis virginiana	No	
Hb	Hickory, Bitternut (or Swamp)	Carya cordiformis	No	
Hc	Horsechestnut	Aesculus hippocastanum	No	
He	Hemlock, Eastern	Tsuga canadensis	Yes	
Hi	Hickory, all	Carya spp.	Yes	
Hk	Hackberry	Celtis occidentalis	No	
HI	Hickory, Big Shellbark	Carya laciniosa	No	
Hm	Hickory, Mockernut	Carya tomentosa	No	
Hp	Hickory, Sweet Pignut	Carya glabra	No	
Hs	Hickory, Shagbark	Carya ovata	No	
Ht	Hawthorn	Crataegus spp.	No	
Iw	Ironwood (or Eastern Hop-Hornbeam)	Ostrya virginiana	Yes	

Kk	Kentucky Coffee-tree	Gymnocladus dioicus	No	
LO	Locust, Black and, or Honey	Robinia spp.	Yes	
La	Larch, Eastern (or American Larch or Tamarack)	Larix, laricina	Yes	
Lb	Locust, Black	Robinia pseudoacacia	No	
Le	Larch, European	Larix decidua	No	
Lj	Larch, Japanese	Larix leptolepis	No	
LI	Linden, Little Leaf	Tilia cordata	No	
MX	Maple, any or mixed	Acer spp.	Yes	
Mb	Maple, Black	Acer nigrum, (Acer saccharum ssp. nigrum)	No	
Mf	Maple, Freeman	Acer X freemanii	No	
Mh	Maple, Hard (or Sugar)	Acer saccharum	Yes	
Mm	Maple, Manitoba (or Box Elder)	Acer negundo	No	
Mn	Maple, Norway	Acer platanoides	No	
Mo	Mulberry, Red	Morus rubra	No	
Mp	Maple, Striped	Acer pensylvanicum	No	
Mr	Maple, Red (or Soft Maple)	Acer rubrum	Yes	
Ms	Maple, Silver	Acer saccharinum	Yes	
Mt	Maple, Mountain	Acer spicatum	No	
NON	No incidental tree species documented			
OC	Conifers, Other		Yes	
OH	Hardwoods, Other		Yes	
OX	Oak, any or mixed	Quercus spp.	Yes	
Ob	Oak. Bur (or Mossy-cup)	Quercus macrocarpa	No	
Obl	Oak, Black	Quercus nigra	No	
Och	Oak, Chinquapin	Quercus muehlenbergii	No	
Op	Oak, Pin (or Swamp)	Quercus palustris	No	
Or	Oak, Red (or Northern	Quercus rubra	Yes	

	Red)			
Os	Oak, Shumards (or Swamp Red)	Quercus shumardii	No	
Osw	Oak, Swamp White	Quercus bicolor	No	
Ow	Oak, White	Quercus alba	Yes	
PO	Poplar, any or mixed	Populus spp.	Yes	
PX	Pine, any or mixed	Pinus spp.	Yes	
Pa	Pawpaw	Asimina triloba	No	
Pb	Poplar, Balsam	Populus balsamifera	Yes	
Pc	Poplar, Carolina	Populus X canadensis	No	
Pd	Cottonwood, Eastern	Populus deltoides	Yes	
Pe	Poplar, Silver (or European White)	Populus alba	No	
Ph	Poplar, Hybrid	Populus	No	
Pj	Pine, Jack	Pinus banksiana.	Yes	
Pl	Aspen, Largetooth	Populus grandidentata	Yes	
Pn	Pine, Austrian (or Black)	Pinus nigra	No	
Pp	Pine, Pitch	Pinus rigida	No	
Pr	Pine, Red	Pinus resinosa	Yes	
Ps	Pine, Scotch	Pinus sylvestris	Yes	
Pt	Aspen, Trembling	Populus tremuloides	Yes	
Pw	Pine, White (or Eastern White)	Pinus strobus	Yes	
Red	Redbud	Cercis canadensis	No	
SX	Spruce, any or mixed	Picea spp.	Yes	
Sb	Spruce, Black	Picea mariana	Yes	
Sc	Spruce, Colorado (or Blue)	Picea pungens	No	
Sk	Spruce, Koyama	Picea koyamai	No	
Sn	Spruce, Norway	Picea abies	No	
Sr	Spruce, Red	Picea rubens	No	
Ss	Sassafras	Sassafras albidum	No	
Sw	Spruce, White	Picea glauca	Yes	
Sy	Sycamore	Platanus occidentalis	No	

ITp	Tulip Tree	Platanus occidentalis	No	<u> </u>
lwr	Willow, any or mixed	Salix spp.	lives	<u> </u>
lwb	Walnut, Black	Juglans nigra	lives	

LIO Lookup Table Values:
FOREST_GENETICS_SITE_TYPE_LIST

SITE TYPE	SITE TYPE DESCR	EXPIRY DATETIME
Breeding Orchard	A Breeding Orchard is a collection of selected trees or species established primarily to obtain seed from controlled pollination's.	
Clonal Seed Orchard	A Clonal Seed Orchard is a plantation of trees that has been isolated so as to reduce pollination from genetically inferior outside sources, and intensively managed to improve the genotype by setting out grafts or cuttings to produce frequent, abundant and easily harvestable seed crops.	
Genetic Archive	A collection of superior and sometimes special trees established as a repository of the genetic material which may be used for breeding and other purposes as program needs dictate. Breeding Orchard,"A Breeding Orchard is a collection of selected trees or species established primarily to obtain seed from controlled pollination's.	
Progeny Test	A Progeny Test is a location where tests are performed to evaluate the genetic constitution of an individual tree from the performance of its progeny produced by some specific mating system.	
Provenance Test	A Provenance Test is a location where experiments are performed, and usually replicated, comparing trees grown from seed or cuttings collected in many parts of the natural range of the species.	
Seedling Seed Orchard	A Seedling Seed Orchard is a plantation consisting of seedlings established from selected trees, primarily for the production of seed of proven genetic quality.	

LIO Lookup Table Values:
LOCATION_ACCURACY_LIST

LOCATION ACCURACY	EXPIRY DATETIME
Not Applicable	
Over 10,000 metres	
Within 1 metre	
Within 10 metres	
Within 10,000 metres	
Within 100 metres	
Within 1000 metres	
Within 2 metres	
Within 20 metres	
Within 200 metres	
Within 2000 metres	
Within 5 metres	
Within 50 metres	
Within 500 metres	
Within 5000 metres	
AC Accurate (to 10m)	2007-01-12
AP Approximate (to 500m)	2007-01-12
GE General (to 10,000m)	2007-01-12
MO Moderate (to 1000m)	2007-01-12
RE Reliable (to 100m)	2007-01-12
VA Very Accurate (to 2m)	2007-01-12
VG Vague (to 100,000m)	2007-01-12
^ Data Load	2007-01-12