



**CANADIAN URBAN ENVIRONMENTAL HEALTH  
RESEARCH CONSORTIUM**

**DATA DICTIONARY**

January 25, 2018





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POSTAL CODE DATA

POSTAL CODES - annual DMTI single link postal code files, 1983 to 2015

Metadata file: [CANUE Metadata Postal Codes.pdf](#)

(YY = last two digits of specific year of data)

File name	Variable Description	Variable name
DMTI_SLI_YY.csv	6-digit postal code with no space between the FSA and LDU. (i.e. L1R2H2)	POSTALCODEYY
	2 letter alpha abbreviation (Canada Post) according to the first letter of the postal code (i.e. L1R2H2 = ON).	PROV_YY
	Community name	COMM_NAME_YY
	Municipality name	MUNICIPAL_YY
	Date when the postal code became active (YYYYMMDD format).	BIRTH_DATE_YY
	Date when a postal code was retired or no longer in use by Canada Post Corporation (YYYYMMDD format)	RET_DATE_YY
	Dominant Delivery Mode Type for Active Postal Code records only: CF = Call For; DR = Direct; GD = General Delivery, LB = Lock Box; LC = Letter Carrier; MR = Mobile Route; RR = Rural Route; SS = Suburban Service.	DOM_DELMDE_YY
	Total Points of Call – total number of points of call (apartments, businesses, houses and farms) served by the postal code for all delivery mode types for Active Postal Code records only.	TOTAL_POC_YY
	Points of Call for Apartments – the total number of apartments served by the postal code for all delivery mode types for Active Postal Code records only.	POC_APART_YY
	Points of Call for Businesses – the total number of businesses served by the postal code for all delivery mode types for Active Postal Code records only.	POC_BUS_YY
	Points of Call for Houses – the total number of houses served by the postal code for all delivery mode types for Active Postal Code records only.	POC_HOUSE_YY
	Points of Call for Farms – the total number of farms served by the postal code for all delivery mode types for Active Postal Code records only.	POC_FARM_YY
	Total number of Postal Code point records associated with each postal code.	PC_COUNT_YY
	Identifies the method used to geographically position the interpolated coordinate: 10 = Centroid of Building Footprint; 11 = Building/Unit Entrance (Main); 12 = Building Driveway; 20 = Centroid of Parcel; 21 = Inside Parcel; 22 = Along Parcel Front Line.	POSITION_YY
	Longitude of postal code (decimal degrees)	LONGITUDE_YY
	Latitude of postal code (decimal degrees)	LATITUDE_YY
	Flag indicates if a postal code covers multiple streets (1 = multiple, 0 = single ).	MULTI_ST_YY
	Distance in meters to the nearest or closest postal code	NEAREST_DIST_YY
	Interpolated longitude in decimal degrees of the nearest postal code.	NEAREST_LON_YY
	Interpolated latitude in decimal degrees of the nearest postal code.	NEAREST_LAT_YY
Nearest 6-digit postal code data with no space (i.e. L1R2H2).	NEAREST_PC_YY	

**AIR QUALITY DATA**

**NITROGEN DIOXIDE – Land use regression-based annual concentration estimate, base year 2006, with national adjustment, 1984 to 2011**

Metadata file: [CANUE Metadata NO2 LUR National Adjustment.pdf](#)

File name	Variable Description	Variable name
<b>NO2LUR_NA_YY.csv</b>	6-digit DMTI single link postal code	POSTALCODEYY
	Original LUR annual average concentration at postal code in parts per billion, circa 2006	NO2LUR06_A_01
	Nationally-adjusted annual average concentration at postal code in parts per billion for file year	NO2LURYY_NA_01

**NITROGEN DIOXIDE – Land use regression-based annual concentration estimate, base year 2006, with regional adjustment, 1984 to 2012**

Metadata file: [CANUE Metadata NO2 LUR Regional Adjustment.pdf](#)

File name	Variable Description	Variable name
<b>NO2LUR_RA_YY.csv</b>	6-digit DMTI single link postal code	POSTALCODEYY
	Original LUR annual average concentration at postal code in parts per billion, circa 2006	NO2LUR06_A_01
	Regionally-adjusted annual average concentration at postal code in parts per billion for file year	NO2LURYY_RA_01
	Census division identifier	NO2LURYY_RA_02
	Census division name	NO2LURYY_RA_03
	Maximum distance between postal code location and census division boundary in meters (0 = postal code is located within census division)	NO2LURYY_RA_04

**GROUND-LEVEL OZONE – annual modelled concentration estimate, 2002 to 2015**

(SO2OMI\_A\_YY.csv files, where YY = last two digits of specific year of data)

Metadata file: [CANUE Metadata SO2 OMI.pdf](#)

File name	Variable Description	Variable name
<b>O3CHG_A_YY.csv</b>	6-digit DMTI single link postal code	POSTALCODEYY
	Annual average concentration at postal code in parts per billion	O3CHGYY_01

**FINE PARTICULATES (PM2.5) – 3-year annual average satellite-based concentration estimate, 2000 to 2012**

(PM25DAL\_A\_YY.csv files, where YY = last two digits of specific year of data)

Metadata file: [CANUE Metadata PM25 DAL.pdf](#)

File name	Variable Description	Variable name
<b>PM25DAL_A_YY.csv</b>	6-digit DMTI single link postal code	POSTALCODEYY
	3-year annual average concentration at postal code in $\mu\text{g}/\text{m}^3$	PM25DALYY_01
	Mean of 3-year average concentration within 10km of postal code in $\mu\text{g}/\text{m}^3$	PM25DALYY_02



## Data Dictionary

January 25, 2018

SULFUR DIOXIDE – 3-year annual average OMI satellite-based concentration estimate, 2007 to 2015  
(SO2OMI\_A\_YY.csv files, where YY = last two digits of specific year of data)  
Metadata File: [CANUE Metadata SO2 OMI.pdf](#)

File name	Variable Description	Variable name
SO2OMI_A_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	3-year annual average concentration at postal code in parts per billion	SO2OMIYY_01

**GREEN/BLUE SPACE DATASETS**

LANDSAT ANNUAL MEAN NDVI - annual mean normalized difference vegetation index files, 1984 to 2015  
 (GRLAN\_AMN\_YY.csv files, where YY = last two digits of specific year of data)  
 Metadata file: [CANUE Metadata NDVI Landsat.pdf](#)

File name	Variable Description	Variable name
GRLAN_AMN_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Annual mean NDVI at postal code	GRLANYY_01
	Mean of annual mean NDVI within 100 m	GRLANYY_02
	Mean of annual mean NDVI within 250 m	GRLANYY_03
	Mean of annual mean NDVI within 500 m	GRLANYY_04
	Mean of annual mean NDVI within 1000 m	GRLANYY_05
	Maximum of annual mean NDVI within 100 m	GRLANYY_06
	Maximum of annual mean NDVI within 250 m	GRLANYY_07
	Maximum of annual mean NDVI within 500 m	GRLANYY_08
	Maximum of annual mean NDVI within 1000 m	GRLANYY_09

LANDSAT GROWING SEASON MEAN NDVI - growing season (May 1st - Aug 31st) mean normalized difference vegetation index, 1984 to 2015  
 (GRLAN\_GMN\_YY.csv files, where YY = last two digits of specific year of data)  
 Metadata file: [CANUE Metadata NDVI Landsat.pdf](#)

File name	Variable Description	Variable name
GRLAN_GMN_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Growing season mean NDVI at postal code	GRLANYY_10
	Mean of growing season mean NDVI within 100 m	GRLANYY_11
	Mean of growing season mean NDVI within 250 m	GRLANYY_12
	Mean of growing season mean NDVI within 500 m	GRLANYY_13
	Mean of growing season mean NDVI within 1000 m	GRLANYY_14
	Maximum of growing season mean NDVI within 100 m	GRLANYY_15
	Maximum of growing season mean NDVI within 250 m	GRLANYY_16
	Maximum of growing season mean NDVI within 500 m	GRLANYY_17
	Maximum of growing season mean NDVI within 1000 m	GRLANYY_18

**GREEN/BLUE SPACE DATASETS** *(continued)*

LANDSAT ANNUAL MAXIMUM NDVI - annual maximum normalized difference vegetation index, 1984 to 2015  
 (GRLAN\_GP\_YY.csv files, where YY = last two digits of specific year of data)  
 Metadata file: [CANUE Metadata NDVI Landsat.pdf](#)

File name	Variable Description	Variable name
GRLAN_GP_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Maximum annual NDVI at postal code	GRLANY_19
	Mean of maximum annual NDVI within 100 m	GRLANY_20
	Mean of maximum annual NDVI within 250 m	GRLANY_21
	Mean of maximum annual NDVI within 500 m	GRLANY_22
	Mean of maximum annual NDVI within 1000 m	GRLANY_23
	Maximum of annual maximum NDVI within 100 m	GRLANY_24
	Maximum of annual maximum NDVI within 250 m	GRLANY_25
	Maximum of annual maximum NDVI within 500 m	GRLANY_26
	Maximum of annual maximum NDVI within 1000 m	GRLANY_27

MODIS ANNUAL MEAN NDVI - annual mean normalized difference vegetation index files, 2000 to 2015  
 (GRMOD\_AMN\_YY.csv files, where YY = last two digits of specific year of data)  
 Metadata file: [CANUE Metadata NDVI Modis.pdf](#)

File name	Variable Description	Variable name
GRMOD_AMN_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Mean annual NDVI at postal code	GRMODY_01
	Mean of annual mean NDVI within 500 m	GRMODY_02
	Mean of annual mean NDVI within 1000 m	GRMODY_03
	Maximum of annual mean NDVI within 500 m	GRMODY_04
	Maximum of annual mean NDVI within 1000 m	GRMODY_05

**GREEN/BLUE SPACE DATASETS** *(continued)*

MODIS ANNUAL MAXIMUM NDVI - annual maximum normalized difference vegetation index files, 2000 to 2005 (GRMOD_AMX_YY.csv files, where YY = last two digits of specific year of data) Metadata file: <a href="#">CANUE Metadata NDVI Modis.pdf</a>		
File name	Variable Description	Variable name
GRMOD_AMX_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Annual maximum NDVI at postal code	GRMODYY_06
	Mean of annual maximum NDVI within 500 m	GRMODYY_07
	Mean of annual maximum NDVI within 1000 m	GRMODYY_08
	Maximum of annual maximum NDIV within 500 m	GRMODYY_09
	Maximum of annual maximum NDIV within 1000 m	GRMODYY_10
MODIS GROWING SEASON MEAN NDVI - growing season (May 1st - Aug 31st) mean normalized difference vegetation index, 2000 to 2015; (GRMOD_GMN_YY.csv files, where YY = last two digits of specific year of data) Metadata file: <a href="#">CANUE Metadata NDVI Modis.pdf</a>		
File name	Variable Description	Variable name
GRMOD_GMN_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Growing season mean NDVI at postal code	GRMODYY_11
	Mean of growing season mean NDVI within 500 m	GRMODYY_12
	Mean of growing season mean NDVI within 1000 m	GRMODYY_13
	Maximum of growing season mean NDVI within 500 m	GRMODYY_14
	Maximum of growing season mean NDVI within 1000 m	GRMODYY_15
MODIS GROWING SEASON MAXIMUM NDVI - growing season (May 1st - Aug 31st) maximum normalized difference vegetation index, 1984 to 2015; (GRMOD_GMX_YY.csv files, where YY = last two digits of specific year of data) Metadata file: <a href="#">CANUE Metadata NDVI Modis.pdf</a>		
File name	Variable Description	Variable name
GRMOD_GMX_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Growing Season maximum NDVI at postal code	GRMODYY_16
	Mean of growing season maximum NDVI within 500 m	GRMODYY_17
	Mean of growing season maximum NDVI within 1000 m	GRMODYY_18
	Maximum of growing season maximum NDVI within 500 m	GRMODYY_19
	Maximum of growing season maximum NDVI within 1000 m	GRMODYY_20



**GREEN/BLUE SPACE DATASETS** *(continued)*

AVHRR ANNUAL and GROWING SEASON NDVI - annual mean and maximum, and growing season (May 1st to Aug 31st) maximum normalized difference vegetation index, 1985 to 2013  
 (GRAVH\_A\_YY.csv files, where YY = last two digits of specific year of data)  
 Metadata file: [CANUE Metadata NDVI AVHRR.pdf](#)

<b>File name</b>	<b>Variable Description</b>	<b>Variable name</b>
GRAVH_A_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Annual maximum NDVI	GRAVHYY_01
	Annual average NDVI	GRAVHYY_02
	Growing season average NDVI	GRAVHYY_03

**NEIGHBOURHOOD FACTOR DATASET**

MATERIAL AND SOCIAL DEPRIVATION INDICES - indicators of material and social deprivation based on census information, 1991, 1996, 2001, 2006 and 2011  
 (INDMSD\_A\_91.csv; INDMSD\_A\_96.csv; INDMSD\_A\_01.csv; INDMSD\_A\_06.csv; and INDMSD\_A\_11.csv)  
 Metadata file: [CANUE Metadata Deprivation Index.pdf](#)

<b>File name</b>	<b>Variable Description</b>	<b>Variable name</b>
INDMSD_A_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Maximum distance between postal code location and dissemination area boundary in meters (0 = postal code is located within dissemination area)	MSDYY_DIS_DA
	Dissemination Area Population	MSDYY_DAPOP
	Census Subdivision code	MSDYY_CSD
	Province	MSDYY_PR
	Region: Atlantic, Quebec, Ontario, Prairies, British Columbia	MSDYY_REG
	Zone: Large CMA, Other CMA, Agglomeration, Rural	MSDYY_ZONE
	Census Metropolitan Area: Toronto, Montreal, Vancouver	MSDYY_CMA
	Deprivation index - material factor score	MSDYY_MFS
	Deprivation index - social factor score	MSDYY_SFS
	Material Factor Score Quintile within Province (1 = lowest, 5 = highest)	MSDYY_MQ5PR
	Social Factor Score Quintile within Province (1 = lowest, 5 = highest)	MSDYY_SQ5PR
	Social Factor Score Percentile within Province (1 = lowest, 100 = highest)	MSDYY_MPPR
	Material Factor Score Percentile within Province (1 = lowest, 100 = highest)	MSDYY_SPPR
	Material Factor Score Quintile within Region (1 = lowest, 5 = highest)	MSDYY_MQ5REG
	Social Factor Score Quintile within Region (1 = lowest, 5 = highest)	MSDYY_SQ5REG
	Material Factor Score Quintile within Zone (1 = lowest, 5 = highest)	MSDYY_MQ5ZN
	Social Factor Score Quintile within Zone (1 = lowest, 5 = highest)	MSDYY_SQ5ZN
	Material Factor Score Quintile within CMA (1 = lowest, 5 = highest)	MSDYY_MQ5CMA
	Social Factor Score Quintile within CMA (1 = lowest, 5 = highest)	MSDYY_SQ5CMA

**NEIGHBOURHOOD FACTOR DATASETS** *(continued)*

DMSP-OLS NIGHTTIME LIGHT - annual average nighttime brightness, 1992 to 2013  
 (LGTNLT\_A\_YY.csv files, where YY = last two digits of specific year of data)  
 Metadata file: [CANUE Metadata Night Light.pdf](#)

<b>File name</b>	<b>Variable Description</b>	<b>Variable name</b>
LGTNLT_A_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Brightness at postal code	LGTNLTY_01

**WEATHER AND CLIMATE DATASETS**

WEATHER INDICATORS – annual metrics based on interpolated station data, 1985 to 2015  
(WTHNRC\_A\_YY.csv files, where YY = last two digits of specific year of data)  
Metadata file: [CANUE Weather NRCAN.pdf](#)

<b>File name</b>	<b>Variable Description</b>	<b>Variable name</b>
WTHNRC_A_YY.csv	6-digit DMTI single link postal code	POSTALCODEYY
	Annual highest temperature (Celsius)	WTHNRCYY_01
	Annual lowest temperature (Celsius)	WTHNRCYY_02
	Annual average temperature (Celsius)	WTHNRCYY_03
	Annual average of daily maximum temperature (Celsius)	WTHNRCYY_04
	Annual average of daily minimum temperature (Celsius)	WTHNRCYY_05
	Annual average of difference between maximum and minimum temperatures (Celsius)	WTHNRCYY_06
	Annual number of days with rain (precipitation on all days with minimum temperature > = 0)	WTHNRCYY_07
	Annual total precipitation as rain (precipitation on all days with minimum temperature > = 0) (millimeters)	WTHNRCYY_08
	Annual number of rain events (consecutive days with rain, including single day events)	WTHNRCYY_09
	Annual average amount of rain per event (millimeters)	WTHNRCYY_10
	Annual average length of rain events (days)	WTHNRCYY_11
	Annual number of days with snow (precipitation on all days with minimum temperature < 0)	WTHNRCYY_12
	Annual total precipitation as snow (precipitation on all days with minimum temperature < 0) (millimeters)	WTHNRCYY_13
	Annual number of snow events (consecutive days with snow, including single day events)	WTHNRCYY_14
	Annual average amount of snow per event (millimeters)	WTHNRCYY_15
	Annual average length of snow events (days)	WTHNRCYY_16
	Annual number of heat event starts based on maximum temperature (where there are three or more consecutive days with maximum daily temperature > 95th percentile of daily normal maximum temperatures; normal distribution based on daily maximum temperatures 1985-2015)	WTHNRCYY_17

**WEATHER AND CLIMATE DATASETS** *(continued)*

<b>File name</b>	<b>Variable Description</b>	<b>Variable name</b>
WTHNRC_A_YY.csv <i>(continued)</i>	Annual number of days in heat events based on maximum temperature (where there are three or more consecutive days with maximum daily temperature > 95th percentile of daily normal maximum temperatures; normal distribution based on daily maximum temperatures 1985-2015)	WTHNRCYY_18
	Annual average length of heat events based on maximum temperature (where there are three or more consecutive days with maximum daily temperature > 95th percentile of daily normal maximum temperatures; normal distribution based on daily maximum temperatures 1985-2015)	WTHNRCYY_19
	Annual number of cool event starts based on maximum temperature (where there are three or more consecutive days with maximum daily temperature <5th percentile of daily normal maximum temperatures; normal distribution based on daily maximum temperatures 1985-2015)	WTHNRCYY_20
	Annual number of days in cool events based on maximum temperature (where there are three or more consecutive days with maximum daily temperature <5th percentile of daily normal maximum temperatures; normal distribution based on daily maximum temperatures 1985-2015)	WTHNRCYY_21
	Annual average length of cool events based on maximum temperature (where there are three or more consecutive days with maximum daily temperature <5th percentile of daily normal maximum temperatures; normal distribution based on daily maximum temperatures 1985-2015)	WTHNRCYY_22
	Annual number of heat event starts based on minimum temperature (where there are three or more consecutive days with minimum daily temperature > 95th percentile of daily normal minimum temperatures; normal distribution based on daily minimum temperatures 1985-2015)	WTHNRCYY_23
	Annual number of days in heat events based on minimum temperature (where there are three or more consecutive days with minimum daily temperature > 95th percentile of daily normal minimum temperatures; normal distribution based on daily minimum temperatures 1985-2015)	WTHNRCYY_24
	Annual average length of heat events based on minimum temperature (where there are three or more consecutive days with minimum daily temperature > 95th percentile of daily normal minimum temperatures; normal distribution based on daily minimum temperatures 1985-2015)	WTHNRCYY_25
	Annual number of cool event starts based on minimum temperature (where there are three or more consecutive days with minimum daily temperature <5th percentile of daily normal minimum temperatures; normal distribution based on daily minimum temperatures 1985-2015)	WTHNRCYY_26
	Annual number of days in cool events based on minimum temperature (where there are three or more consecutive days with minimum daily temperature <5th percentile of daily normal minimum temperatures; normal distribution based on daily minimum temperatures 1985-2015)	WTHNRCYY_27

**WEATHER AND CLIMATE DATASETS** *(continued)*

<b>File name</b>	<b>Variable Description</b>	<b>Variable name</b>
WTHNRC_A_YY.csv <i>(continued)</i>	Annual average length of cool events based on minimum temperature (where there are three or more consecutive days with minimum daily temperature <5th percentile of daily normal minimum temperatures; normal distribution based on daily minimum temperatures 1985-2015)	WTHNRCYY_28
	Annual number of heat event starts based on average temperature (where there are three or more consecutive days with average daily temperature > 95th percentile of daily normal average temperatures; normal distribution based on daily average temperatures 1985-2015)	WTHNRCYY_29
	Annual number of days in heat events based on average temperature (where there are three or more consecutive days with average daily temperature > 95th percentile of daily normal average temperatures; normal distribution based on daily average temperatures 1985-2015)	WTHNRCYY_30
	Annual average length of heat events based on average temperature (where there are three or more consecutive days with average daily temperature > 95th percentile of daily normal average temperatures; normal distribution based on daily average temperatures 1985-2015)	WTHNRCYY_31
	Annual number of cool event starts based on average temperature (where there are three or more consecutive days with average daily temperature <5th percentile of daily normal average temperatures; normal distribution based on daily average temperatures 1985-2015)	WTHNRCYY_32
	Annual number of days in cool events based on average temperature (where there are three or more consecutive days with average daily temperature <5th percentile of daily normal average temperatures; normal distribution based on daily average temperatures 1985-2015)	WTHNRCYY_33
	Annual average length of cool events based on average temperature (where there are three or more consecutive days with average daily temperature <5th percentile of daily normal average temperatures; normal distribution based on daily average temperatures 1985-2015)	WTHNRCYY_34
	Annual number of frost free days (min temp > 0) (days)	WTHNRCYY_35