CANADIAN URBAN ENVIRONMENTAL HEALTH RESEARCH CONSORTIUM

DATA DICTIONARY

NOVEMBER 16, 2017

Contents

POSTAL CODE DATA

<table>
<tr><td colspan="3">POSTAL CODES - annual DMTI single link postal code files, 1983 to 2015
Metadata file: CANUE Metadata Postal Codes V1.0.pdf
(YY = last two digits of specific year of data)</td></tr>
<tr><th>File name</th><th>Variable Description</th><th>Variable name</th></tr>
<tr><td>DMTI_SLI_YY.csv</td><td>6 digital postal code with no space between the FSA and LDU. (i.e. L1R2H2)</td><td>POSTALCODE_YY</td></tr>
<tr><td></td><td>2 letter alpha abbreviation (Canada Post) according to the first letter of the postal code (i.e. L1R2H2 = ON).</td><td>PROV_YY</td></tr>
<tr><td></td><td>Community name</td><td>COMM_NAME_YY</td></tr>
<tr><td></td><td>Municipality name</td><td>MUNICIPAL_YY</td></tr>
<tr><td></td><td>Date when the postal code became active (YYYYMMDD format).</td><td>BIRTH_DATE_YY</td></tr>
<tr><td></td><td>Date when a postal code was retired or no longer in use by Canada Post Corporation (YYYYMMDD format)</td><td>RET_DATE_YY</td></tr>
<tr><td></td><td>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.</td><td>DOM_DELMDE_YY</td></tr>
<tr><td></td><td>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.</td><td>TOTAL_POC_YY</td></tr>
<tr><td></td><td>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.</td><td>POC_APART_YY</td></tr>
<tr><td></td><td>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.</td><td>POC_BUS_YY</td></tr>
<tr><td></td><td>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.</td><td>POC_HOUSE_YY</td></tr>
<tr><td></td><td>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.</td><td>POC_FARM_YY</td></tr>
<tr><td></td><td>Total number of Postal Code point records associated with each postal code.</td><td>PC_COUNT_YY</td></tr>
<tr><td></td><td>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.</td><td>POSITION_YY</td></tr>
<tr><td></td><td>Longitude of postal code (decimal degrees)</td><td>LONGITUDE_YY</td></tr>
<tr><td></td><td>Latitude of postal code (decimal degrees)</td><td>LATITUDE_YY</td></tr>
<tr><td></td><td>Flag indicates if a postal code covers multiple streets (1 = multiple, 0 = single).</td><td>MULTI_ST_YY</td></tr>
<tr><td></td><td>Distance in meters to the nearest or closest postal code</td><td>NEAREST_DIST_YY</td></tr>
<tr><td></td><td>Interpolated longitude in decimal degrees of the nearest postal code.</td><td>NEAREST_LON_YY</td></tr>
<tr><td></td><td>Interpolated latitude in decimal degrees of the nearest postal code.</td><td>NEAREST_LAT_YY</td></tr>
<tr><td></td><td>Nearest 6-digit postal code data with no space (i.e. L1R2H2).</td><td>NEAREST_PC_YY</td></tr>
</table>

AIR QUALITY DATA

NITROGEN DIOXIDE – annual land use regression-based concentration estimate, 2006
Metadata file: CANUE Metadata NO2 LUR V1.0.pdf

File name	Variable Description	Variable name
NO2LUR_A_06.csv	6-digit DMTI single link postal code, 2006	NO2LUR06_PC
	Annual average concentration at postal code in parts per billion, 2006	NO2LURY06_01

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 V1.0.pdf

File name	Variable Description	Variable name
O3CHG_A_YY.csv	6-digit DMTI single link postal code	O3CHGYY_01
	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 ACAG V1.1.pdf

File name	Variable Description	Variable name
PM25DAL_A_YY.csv	6-digit DMTI single link postal code	PM25DALYY_PC
	3-year annual average concentration at postal code in micrograms per cubic meter	PM25DALYY_01

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 V1.0.pdf

File name	Variable Description	Variable name
SO2OMI_A_YY.csv	6-digit DMTI single link postal code	SO2OMIYY_PC
	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 V1.0.pdf

File name	Variable Description	Variable name
GRLAN_AMN_YY.csv	6-digit DMTI single link postal code	GRLANYY_PC
	Annual mean value at postal code	GRLANYY_01
	Annual mean of means 100m	GRLANYY_02
	Annual mean of means 250m	GRLANYY_03
	Annual mean of means 500m	GRLANYY_04
	Annual mean of means 1000m	GRLANYY_05
	Annual max of means 100m	GRLANYY_06
	Annual max of means 250m	GRLANYY_07
	Annual max of means 500m	GRLANYY_08
	Annual max of means 1000m	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 V1.0.pdf

File name	Variable Description	Variable name
GRLAN_GMN_YY.csv	6-digit DMTI single link postal code	GRLANYY_PC
	Growing Season mean value at postal code	GRLANYY_10
	Growing Season mean of means 100m	GRLANYY_11
	Growing Season mean of means 250m	GRLANYY_12
	Growing Season mean of means 500m	GRLANYY_13
	Growing Season mean of means 1000m	GRLANYY_14
	Growing Season max of means 100m	GRLANYY_15
	Growing Season max of means 250m	GRLANYY_16
	Growing Season max of means 500m	GRLANYY_17
	Growing Season max of means 1000m	GRLANYY_18

GREEN/BLUE SPACE DATASETS *(continued)*

LANDSAT GREENEST PIXEL - annual highest 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 V1.0.pdf

File name	Variable Description	Variable name
GRLAN_GP_YY.csv	6-digit DMTI single link postal code	GRLANYY_PC
	Greenest Pixel value at postal code	GRLANYY_19
	Mean of greenest pixel values 100m	GRLANYY_20
	Mean of greenest pixel values 250m	GRLANYY_21
	Mean of greenest pixel values 500m	GRLANYY_22
	Mean of greenest pixel values 1000m	GRLANYY_23
	Max of greenest pixel values 100m	GRLANYY_24
	Max of greenest pixel values 250m	GRLANYY_25
	Max of greenest pixel values 500m	GRLANYY_26
	Max of greenest pixel values 1000m	GRLANYY_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 V1.0.pdf

File name	Variable Description	Variable name
GRMOD_AMN_YY.csv	6-digit DMTI single link postal code	GRMODYY_PC
	Annual mean value at postal code	GRMODYY_01
	Annual mean of means 500m	GRMODYY_02
	Annual mean of means 1000m	GRMODYY_03
	Annual max of means 500m	GRMODYY_04
	Annual max of means 1000m	GRMODYY_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: CANUE Metadata NDVI Modis V1.0.pdf		
File name	**Variable Description**	**Variable name**
GRMOD_AMX_YY.csv	6-digit DMTI single link postal code	GRMODYY_PC
	Annual max value at postal code	GRMODYY_06
	Annual mean of maximums within 500m	GRMODYY_07
	Annual mean of max 1000m	GRMODYY_08
	Annual max of max 500m	GRMODYY_09
	Annual max of max 1000m	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: CANUE Metadata NDVI Modis V1.0.pdf		
File name	**Variable Description**	**Variable name**
GRMOD_GMN_YY.csv	6-digit DMTI single link postal code	GRMODYY_PC
	Growing Season mean value at postal code	GRMODYY_11
	Growing Season mean of means 500m	GRMODYY_12
	Growing Season mean of means 1000m	GRMODYY_13
	Growing Season max of means 500m	GRMODYY_14
	Growing Season max of means 1000m	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: CANUE Metadata NDVI Modis V1.0.pdf		
File name	**Variable Description**	**Variable name**
GRMOD_GMX_YY.csv	6-digit DMTI single link postal code	GRMODYY_PC
	Growing Season max value at postal code	GRMODYY_16
	Growing Season mean of maximums within 500m	GRMODYY_17
	Growing Season mean of max 1000m	GRMODYY_18
	Growing Season max of max 500m	GRMODYY_19
	Growing Season max of max 1000m	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 V1.0.pdf

File name	Variable Description	Variable name
GRAVH_A_YY.csv	6-digit DMTI single link postal code	GRAVHYY_PC
	Annual maximum NDVI	GRAVHYY_AMX
	Annual average NDVI	GRAVHYY_AAV
	Growing season average NDVI	GRAVHYY_GSA

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 V1.0.pdf

File name	Variable Description	Variable name
INDMSD_A_YY.csv	6-digit DMTI single link postal code	MSDYY_PCODE
	Maximum distance between postal code location and dissemination area boundary (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 V1.0.pdf		
File name	**Variable Description**	**Variable name**
LGTNLT_A_YY.csv	6-digit DMTI single link postal code	LGTNLTYY_PC
	Brightness at postal code	LGTNLTYY_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 V1.0.pdf		
File name	**Variable Description**	**Variable name**
WTHNRC_A_YY.csv	6-digit DMTI single link postal code	WTHNRCYY_PC
	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)*

File name	Variable Description	Variable name
WTHNRC_A_YY.csv *(continued)*	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)*

File name	Variable Description	Variable name
WTHNRC_A_YY.csv *(continued)*	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