

Spectrum™ Technology Platform

Version 2018.2.0

GeoEnrichment Risk Database Guide



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G e t t i n g S u p p o r t

1 - Introduction

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GeoEnrichment Risk Data

GeoEnrichment Risk Data provides comprehensive location-based coverage of distance to coastal boundaries, property fire protection, wildfire risk, and flood risks faced by insurance companies. This information is pre-processed so that a user can immediately access the information with a pbKey™ from a geocoded address or US Address Fabric record.

For reference, see the *GeoEnrichment Risk Data Product Guide*. You can download the document in PDF format from [GeoEnrichment Risk Data Product Guide](#).

GeoEnrichment Risk Data consists of the following:

Crime Index

CrimeIndex data measures the likelihood of where crime may occur by 11 crime types for all block groups in the US and Puerto Rico. Pitney Bowes Software defines crime according to Federal Bureau of Investigation (FBI) definitions for crime. Specific crime variables measured are:

Overall crime (a composite measure based on all crime types)

Violent crime, which is composed of the following offenses:

- Murder
- Rape
- Robbery
- Aggravated Assault

Property crime includes the offenses of

- Burglary
- Larceny/Theft
- Motor Vehicle Theft
- Arson

Each crime variable includes both a numerical score – where higher values denote the increased likelihood of criminal activity – and a qualitative categorization that helps explain the numerical crime score probability.

Distance to Coast

U.S. Coastal Waters includes a region file of coastal water boundaries and water body names within 3 miles of the coastline. This dataset is linked to Location data based on the nearest coastal water. This dataset also includes the name and type of water body connected to the coastal water body to account for hurricane storm surge.

Earthquake

This dataset provides information to easily determine the earthquake-related information for a given location. The attributes include information from following earthquake related features:

- Aggregate Earthquake Event Information: Contains aggregate earthquake event data in the United States. R numbers correspond to the magnitude scale.
- Earthquake Fault Lines: Depicts location of the fault lines
- Earthquake Fault Zones: Defines a 1/4 mile buffer around each fault line
- Soil Classifications: Presents information on soil type which affects the amplification of ground motion.
- California PML Zones: Probable maximum loss, which is the expected insured loss after deductible, for areas in the state of California.

Wildfire Risk

Wildfire Risk is a nation-wide wildfire hazard and risk assessment tool. Incorporating the predicted severity (hazard) and the predicted frequency (risk) of wildfire in a given location. Wildfire Risk gives a comprehensive view of the danger that a structure is exposed to. This dataset provides which is an overall rating of the likelihood of a wildfire at a given location. It also provides a descriptive name for the wildfire risk at a given location. This dataset also provides many other attributes that further describe the factors that are used to calculate the Risk50 score.

These attributes include information about where there has been extensive bark beetle kill and previous wildfire burn perimeters from the past year.

Flood Risk

Flood Risk is a map database that includes digital versions of Flood Insurance Rate Maps (FIRMS), Flood Hazard Boundary Maps (FHBM), Digital Flood Insurance Rate Maps (DFIRM), Letter of Map Revisions (LOMR) and National Flood Insurance Program (NFIP) community participation maps. Dataset can be used to determine the flood zone for a given location.

Property Fire Protection

Property Fire Protection provides information to allow the insurance industry to easily assess the structure fire for a given location. This dataset provides the drive distance and drive times to the three closest fire stations. It can also be used to determine if a given location is within an incorporated place. This is important because incorporated places have fire hydrant standards, which impact the level of fire protection provided. Also includes the distance to the nearest body of water for a given location which impacts the level of fire protection in rural areas where a local body of water might be used as a water source by fire fighters.

Premium Tax

Pitney Bowes Insurance Premium District data is used by the insurance industry to determine sales tax on insurance premiums written in some states. This allows insurers to correctly determine the rate due on each insurance policy. Pitney Bowes Insurance Premium District data is for use with Pitney Bowes geocoding and spatial technology.

Installation

1. Download the compressed data file to your computer.
2. Open the compressed file and find the base data folder containing the documentation link file.
3. Extract the base data folder to find the final .txt file.

Note: If you have downloaded the zip with name **Crime_AK_H2DB201803.7z**, then you need to extract this zip to find another zip with name **crime_index_h2db_AK.7z** with a documentation link file. Finally extract the **crime_index_h2db_AK.7z** to find the **crime_index_final_output_AK.h2.db** as final data file.

4. Copy the data to any directory. Note the file name and path.

Note: You may install databases on a mapped drive, but performance will be affected since you will be accessing them on a network rather than accessing them locally.

5. After you install the database files, you will need to define the database as a resource.

For more information, see "Adding a GeoEnrichment Module Database Resource" in the applicable version of the *GeoEnrichment Guide* at support.pb.com/spectrum.

After downloading data and installing the Spectrum Client you need to configure the GeoEnrichment Module in the Spectrum for data processing. For that, follow the steps mentioned in the document available [here](#).

Address Fabric Version Compatibility

All Risk databases require Address Fabric, January, 2019 vintage except Crime Index, which is compatible with the Address Fabric, July, 2018 vintage.

2 - Data Layouts

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Crime Index

CrimeIndex data measures the likelihood of where crime may occur by 11 crime types for all block groups in the US and Puerto Rico. For this product crime is defined according to Federal Bureau of Investigation (FBI) definitions for crime. The specific crime variables measured are:

Overall Crime (a composite measure based on all crime types)

Violent crime, which is composed of the following offenses:

- Murder
- Rape
- Robbery
- Aggravated Assault

Property crime includes the offenses of

- Burglary
- Larceny/Theft
- Motor Vehicle Theft
- Arson

Each crime variable includes both a numerical score – where higher values denote the increased likelihood of criminal activity – and a qualitative categorization that helps explain the numerical crime score probability.

Crime Index Data Fields

Field Name	Field Type	Description
pbkey	Char(12)	A unique address identifier that is returned when an address match is made using the Master Location Dataset.
code	Char(12)	Block Group layer code
composite_crime	Float	Composite measure based on all crime types
violent_crime	Float	Violent crime - measure

Field Name	Field Type	Description
robbery	Float	Robbery - Defined as the taking or attempting to take anything of value from the care, custody, or control of a person or persons by force or threat of force or violence and / or by putting the victim in fear.
rape	Float	Rape - Defined as penetration, no matter how slight, of the vagina or anus with any body part or object, or oral penetration by a sex organ of another person, without the consent of the victim.
aggravated_assault	Float	Aggravated assault - Defined as an unlawful attack by one person upon another for the purpose of inflicting severe or aggravated bodily injury.
murder	Float	Murder - Defined as the willful (non-negligent) killing of one human being by another.
property_crime	Float	Property crime - measure
arson	Float	Arson - Defined as any willful or malicious burning or attempting to burn, with or without intent to defraud, a dwelling house, public building, motor vehicle or aircraft, personal property of another, and other such cases.
burglary	Float	Burglary measure. The unlawful entry of a structure to commit a felony or theft. To classify an offense as a burglary, the use of force to gain entry need not have occurred.
car_theft	Float	Motor vehicle theft measure. Motor vehicle theft is defined as the theft or attempted theft of a motor vehicle.
larceny	Float	Larceny-theft measure. The unlawful taking, carrying, leading, or riding away of property from the possession or constructive possession of another.
composite_crime_category	Char(15)	Composite crime - category lowest / low / below average / above average / high / highest
violent_crime_category	Char(15)	Violent crime - category lowest / low / below average / above average / high / highest
robbery_category	Char(15)	Robbery - category lowest / low / below average / above average / high / highest

Field Name	Field Type	Description
rape_category	Char(15)	Rape - category lowest / low / below average / above average / high / highest
aggravated_assault_category	Char(15)	Aggravated assault - category lowest / low / below average / above average / high / highest
murder_category	Char(15)	Murder - category lowest / low / below average / above average / high / highest
property_crime_category	Char(15)	Property crime - category lowest / low / below average / above average / high / highest
arson_category	Char(15)	Arson - category lowest / low / below average / above average / high / highest
burglary_category	Char(15)	Burglary - category lowest / low / below average / above average / high / highest
car_theft_category	Char(15)	Motor vehicle theft - category lowest / low / below average / above average / high / highest
larceny_category	Char(15)	Larceny-theft - category lowest / low / below average / above average / high / highest

Distance to Coast

GeoEnrichment Distance to Coast is built upon the Coastal Waters data bundle. All of the attribute categories from Coastal Waters are assigned to locations from the Address Fabric. A user with a pbKey™ can quickly integrate distance to coast risk values into processing. GeoEnrichment Distance to Coast Risk delivers all elements of the Coastal Waters data without any GIS processing by using the pbKey™ as a lookup.

Coastal Risk Data Fields

Field Name	Field Type	Description
pbkey	Char (12)	A unique identifier that is returned when an address match is made using the Master Location Dataset.
dc_name	Char (40)	Name of water boundary
dc_cnty	Char (5)	Five-character Census Bureau FIPS code identifying the county from which the record came.
dc_state	Char (2)	State
dc_type	Integer	Water feature type: 0: Unknown Type 1: Oceans and Seas 2: Lake 7: Others 99: Intermittent Water Body
dc_adjname	Char (40)	Name of water body into which the feature referenced by this record flows.
dc_adjtype	Integer	Water feature type of the adjacent water boundary.
dc_dist	Float	Distance to water body in feet

Earthquake

This dataset provides information to easily determine the earthquake related information for a given location. The attributes include information from following earthquake related features:

- Aggregate Earthquake Event Information: Contains aggregate earthquake event data in the United States. The R numbers correspond to the Magnitude Scale.
- Earthquake Fault Lines: Comprises location of the fault lines
- Earthquake Fault Zones: Contains a 1/4 mile buffer around each fault line
- Soil Classifications: Comprises information on soil type which affects the amplification of ground motion
- California PML Zones: California zone determination for the Probable Maximum loss of the expected insured loss after deductible, for structure and contents damage from large earthquakes.

Earthquake Data Fields

Field Name	Field Type	Description
pbkey	Char(12)	A unique address identifier that is returned when an address match is made using the Master Location Dataset.
eq_r0	Integer	Count of R0 events* Note: Eq_R* describes aggregate earthquake event data in the United States. The R numbers correspond to the Magnitude Scale.
eq_r1	Integer	Count of R1 events*
eq_r2	Integer	Count of R2 events*
eq_r3	Integer	Count of R3 events*
eq_r4	Integer	Count of R4 events*
eq_r5	Integer	Count of R5 events*
eq_r6	Integer	Count of R6 events*
eq_r7	Integer	Count of R7 events*
eq_r0_ge	Integer	Count of events >= R0*
eq_r1_ge	Integer	Count of events >= R1*

Field Name	Field Type	Description
eq_r2_ge	Integer	Count of events >= R2*
eq_r3_ge	Integer	Count of events >= R3*
eq_r4_ge	Integer	Count of events >= R4*
eq_r5_ge	Integer	Count of events >= R5*
eq_r6_ge	Integer	Count of events >= R6*
eq_r7_ge	Integer	Count of events >= R7*
eqf_name	Char (80)	Name of fault
eqf_dist	Double	Distance to closest fault in miles (up to 5 decimal precisions)
eqf_sliprt	Char (15)	Amount of offset divided by time interval, normalized to millimeters per year (mm/yr).
eqf_type	Char (25)	Fault type based on fault location
eqf_slrdcd	Char (15)	Four-character code with the first two characters indicating earthquake fault. The next two characters describe the slip direction: <ul style="list-style-type: none"> • _ = no data • C_ = center • E_ = east • LL = left lateral • N_ = north • NE = northeast • NW = northwest • RL = right lateral • S_ = south • SE = southeast • SW = southwest • W_ = west"

Field Name	Field Type	Description
eqf_age	Char (30)	Age of fault in years
eqf_slpsns	Char (15)	Angle of dip of the fault and the relative direction of movement across the fault.
eqf_dipdir	Char (15)	General direction of fault dip, which is the angle at which the fault is inclined from the horizontal plane.
pml_zonegrade	Char (2)	Probable Maximum Loss Zone Grade – Currently only available for the state of California
eqs_nehrp	Char (2)	Modified NEHRP Classification Note: Pitney Bowes has adopted a modified NEHRP soil type classification, based on <i>Site Classification Based on Geological Genesis</i> by Wen et al. (2008). For more information refer to the Modified NEHRP Classification table below.
eqs_index	Double	Numeric value representing NEHRP classification
newmadrid_dist	Double	Numeric value representing distance from the New Madrid Fault region

Table 1: Modified NEHRP Classification

Modified NEHRP Classification	Numerical Index	Shear-wave Velocity (Vs) (m/s)	Description
B	1	>760	Most volcanic, plutonic, metamorphic and coarse grained sedimentary
BC	1.5	555-1000	Vretaceous siltstones or mudstone
C	2	360-760	Sedimentary rocks of Oligocener to Cretaceous age or younger coarse grained sedimentary rocks

Modified NEHRP Classification	Numerical Index	Shear-wave Velocity (Vs) (m/s)	Description
CD	2.5	270-555	Sedimentary rocks of Miocene and younger age.
D	3	180-360	Younger alluvium
DE	3.5	90-270	Fine grained alluvial and estuarine deposits along the coast
E	4	<180	Intertidal mud

Flood Risk

GeoEnrichment Flood Risk is built upon the FloodRisk Pro data bundle. All of the attribute categories from FloodRisk Pro are assigned to each impacted locations from the Address Fabric. A user with a pbKey™ can quickly integrate distance to coast risk values into processing. GeoEnrichment Distance to Coast Risk delivers all elements of the Coastal Waters data without any GIS processing by using the pbKey™ as a lookup.

Flood Risk Data Fields

Field Name	Field Type	Description
pbkey	Char (12)	Unique key
flood_id	Integer	Unique identifier
flood_mapname	Char (11)	Map panel identifier

Field Name	Field Type	Description
flood_type	Char (3)	Flood Zone Map Type Note: Refer Type Table Definitions Note: For more information refer Type Definitions , table below.
flood_statecode	Char (2)	State FIPS code
flood_fipscode	Char (12)	Deprecated [Should be changed to Federal Information Processing Standard (FIPS) numerical code: 2-digit state FIPS +3-digit county FIPS]
flood_floodzone	Char (4)	Flood Zone with Base Flood Elevation (Bfe_Elev) or Additional
flood_prim_zone	Char (5)	Flood zone
flood_addl_info	Char (4)	Additional Information Note: For more information refer to the Additional Information Definition , table below
flood_bfe_elev	Char (6)	Base flood elevation (BFE) in feet
flood_commnum	Char (3)	Community number
flood_commstatus	Date / Time	Community status in the National Flood Insurance Program (NFIP) as follows: <ul style="list-style-type: none"> • E = Emergency • NIP = Not in Program • R = Regular • SUS = Suspended
flood_map_eff_date	Date / Time	Map effective date
flood_lomr_date	Char (20)	Letter of Map Revision date
flood_casenumbr	Float	Letter of Map Revision case number
flood_init_fhbm	Date / Time	Initial date of Flood Hazard Boundary Map
flood_init_firm	Date / Time	Initial date of Flood Insurance Rate Map

Field Name	Field Type	Description
flood_elevation	Float	Point elevation
flood_dist100yr	Float	Distance to 100 year flood zone, within 1 mile, in feet
flood_distshx	Char (512)	Distance to SHX or B flood zone, within 1 mile
flood_elv_prof	Double	Elevation profile describing elevation changes (in feet) at specific intervals between the location and the nearest body of water.
flood_elev_prof_dist	Char (100)	Distance in feet to the nearest water body listed in the elevation profile.
flood_waterbody	Char (12)	Name of the closest body of water.

Table 2: Type Definitions

Type	Remarks
Q3P	Printed Panel in Q3 Data
Q3I	Panel Not Printed in Q3 Data
DLC	Printed/ Not Printed Panel in DLG Data
DLP	Printed Panel in DLG Data
DLI	Panel Not Printed in DLG Data
PFP	Printed Panel (with Enhanced Details Like Flood ways as per Old Specifications)
PFI	Panel Not Printed (with Enhanced Details Like Flood ways as per Old Specifications)
PF1	Not Sure, May Be Typo Error, should be PFI
PFC	Printed/ Not Printed Panel (as per Old Specifications)

Type	Remarks
P2P	Printed Panel (Without Flood ways as per current specifications)
P2I	Panel Not Printed (as per Current Specifications)
P2C	Printed/ Not Printed Panel (as per Current Specifications)
NMP	Represents Never Mapped Areas
NMA	If a valid zone not available, Flood Zone given as NMA for Never Mapped Areas
Q3C	Printed/ Not Printed Panel in Q3 Data

Table 3: Additional Information Definitions

Addl_Info	Remarks
UB	Flood Polygon with Cobra Zones where the identification Date is not clear on Firm
UB1	Flood Polygon with Cobra Zones Dated 10-01-1983
UB10	Flood Polygon with Cobra Zones Dated 12-06-1999
UB11	Flood Polygon with Cobra Zones Dated 10-18-2004
UB12	Flood Polygon with Cobra Zones Dated 11-29-1999
UB13	Flood Polygon with Cobra Zones Dated 10-01-1983
UB2	Flood Polygon with Cobra Zones Dated 10-01-1983
UB21	Flood Polygon with Cobra Zones Dated 10-01-1983
UB3	Flood Polygon with Cobra Zones Dated 10-01-1983
UB31	Flood Polygon with Cobra Zones Dated 11-16-1991

Addl_Info	Remarks
F-UB3	Flood Polygon with Cobra Zones
UB4	Flood Polygon with Cobra Zones Dated 10-23-1992
UB41	Flood Polygon with Cobra Zones Dated 10-23-1992
UB5	Flood Polygon with Cobra Zones Dated 11-15-1993
UB51	Flood Polygon with Cobra Zones Dated 11-16-1993
UB6	Flood Polygon with Cobra Zones Dated 2-24-1997
UB61	Flood Polygon with Cobra Zones Dated 2-24-1997
UB8	Flood Polygon with Cobra Zones Dated 2-23-1995
UB9	Flood Polygon with Cobra Zones Dated 10-19-2000
UB91	Flood Polygon with Cobra Zones Dated 10-27-2000
(NULL)	Flood Polygon Not Covered with Cobra Zones and LOMR Updates
FE	Flood Polygon Falling within Flood Easement Boundary as Printed on Firms
LOMR	Flood Polygon with LOMR updates
F	Flood Polygon for which the the Base Flood Elevations are available
L	Flood Polygon Covered by Levees as Printed on Firms

Historical Weather Risk

The GeoEnrichment Historical Weather dataset is built from the US Address Fabric and the datasets from the Risk Data Suite Weather Bundle. Attributes from Weather Risk data are linked to locations in the Address Fabric via the pbKey™, integrating hail, tornado, hurricane, and wind risks with location information, without the need for GIS processing.

Historical Weather Risk Data Fields

Field Name	Field Type	Description
pbkey	Char (12)	Unique key
hail_h5ge_range	Char (25)	Number of hail events greater than or equal to H5
hail_risklevel	Char (6)	Verbal description of hail risk
tornado_f2ge_range	Char (25)	Number of tornado events greater than or equal to F2
tornado_risklevel	Char (6)	Verbal description of tornado risk level
hurricane_events	Char (25)	Hurricane events count
wind_w9ge_range	Char (25)	Number of wind events greater than or equal to W9
wind_risk_level	Char (6)	Verbal description of wind risk level

Premium Tax

Pitney Bowes Insurance Premium District data is used by the insurance industry to determine sales tax on insurance premiums written in certain states. This allows insurers to correctly determine the

rate due on each insurance policy. This dataset is intended for use with Pitney Bowes geocoding and spatial technology.

Note: This dataset includes a file named premium_tax_multiple_districts.txt, which consists of pbKey™ associated with more than one district. pbKey™ in this file duplicate some found in the premium_tax_final_output file, with both pbKeys representing different districts.

Premium Tax Data Fields

Field Name	Field Type	Description
pbkey	Char(12)	A unique identifier
tax_code	Integer	Fire control district code
dist_name	Char (50)	Insurance premium district name
dist_type	Char (10)	Type of district
state_fips	Char (3)	State FIPS code
state_abbr	Char (2)	Two letter state abbreviation
update	Char (10)	Date when district boundary was created or updated, in MMYYYY format.
currency	Char (10)	Date when district became active, in MMYYYY format.
notes	Char (255)	Boundary notes
fips	Char (10)	Combination of state and county FIPS codes.
change_date	Char (10)	Date on which insurance premium district was edited, in MMDDYY format.
new_effect_date	Char (10)	Effective date of changes to insurance premium district, in MMDDYY format.
expiration_date	Char (10)	Date on which district became inactive, in MMDDYY format.

Field Name	Field Type	Description
muni_gnis	Char (10)	Municipality's Geographic Names Information System (GNIS) code. GNIS is the official repository of geographic feature names for the United States.
fire	Char (15)	Fire tax rate. Format is dependent on value of FireFlag.
fireflag	Char (2)	Fire tax rate format. P = percentage F = flat fee M = multiple
casualty	Char (15)	Casualty tax rate. Format is dependent on value of CasualtyFlag.
casltyflag	Char (2)	Casualty Flag rate format. Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700)
vehicle	Char (15)	Vehicle tax rate. Format is dependent on value of VhclFlag.
vhclflag	Char (2)	Vehicle Flag rate format. P: Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700) Example: P, F, M
inlandmrn	Char (15)	Inland Marine tax rate. Format is dependent on value of InlandFlag.
inlandflag	Char (2)	Inland Marine Flag rate format P: Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700) Example: P, F, M
health	Char (15)	Health Tax Rate. Format is dependent on value of HealthFlag

Field Name	Field Type	Description
healthflag	Char (10)	Health Flag rate format. Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700) Example: P, F, M
life	Char (15)	Life Tax rate. Format is dependent on value of LifeFlag
lifeflag	Char (10)	Life Flag rate format. P: Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700) Example: P, F, M
other	Char (15)	Other Tax rate. Format is dependent on value of OtherFlag
otherflag	Char (10)	Other Flag rate format P: Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700) Example: P, F, M
mintax	Char (15)	Minimum Tax rate. Format is dependent on value of MinTaxFlag
mintaxflag	Char (10)	Minimum Tax Flag rate format. P: Percentage (10% represented as 0.1000) F: Flat Fee M: Multiple (3% or 7% represented as 0.0300; 0.0700) Example: P, F, M
multiplerecords	Char (1)	Multiple tax records found True/false indicator of whether multiple tax records were found for this location.

Property Fire Protection

GeoEnrichment Property Fire Risk is built upon the Fire Station data bundle. All of the attribute categories from Fire Station bundle are assigned to each location from the Address Fabric. Users with a pbKey™ can quickly integrate property fire risk values into their processing. Additionally, driving time and distance to the three closest fire station by distance and time are provided. This dataset can be used to determine customized property fire protection scores. Additional information in this dataset includes:

- Fire hydrant coverage for properties in municipal areas
- AM, PM and off-peak drive times
- Driving distance to the three closest fire stations

Property Fire Protection Data Fields

Field Name	Type	Description
pbkey	Char(12)	A unique identifier
place_code	Char(12)	Incorporated place ID. Value will be NULL if address is located in an unincorporated place.
place_name	Char(40)	Incorporated place name. Value will be NULL if address is located in an unincorporated place.
fs1_department_id	Integer	Fire department ID of first closest fire station.
fs1_department_type	Char(20)	Department type for first closest fire station.
fs1_station_id	Integer	Station ID of first closest fire station.
fs1_drivetime_ampeak	Double Precision	Driving time in minutes from first closest fire station during peak AM time.
fs1_drivetime_pmpeak	Double Precision	Driving time in minutes from first closest fire station during peak PM time.

Field Name	Type	Description
fs1_drivetime_offpeak	Double Precision	Driving time in minutes from first closest fire station during off-peak time.
fs1_drivetime_night	Double Precision	Driving time from first closest fire station at night.
fs1_drivedistance	Double Precision	Distance in miles from first closest fire station.
fs2_department_id	Integer	Fire department ID of second closest fire station.
fs2_department_type	Char(20)	Department type for second closest fire station.
fs2_station_id	Integer	Station ID of second closest fire station.
fs2_drivetime_ampeak	Double Precision	Driving time in minutes from second closest fire station during peak AM time.
fs2_drivetime_pmpeak	Double Precision	Driving time in minutes from second closest fire station during peak PM time.
fs2_drivetime_offpeak	Double Precision	Driving time in minutes from second closest fire station during off-peak time.
fs2_drivetime_night	Double Precision	Driving time from second closest fire station at night.
fs2_drivedistance	Double Precision	Distance in miles from second closest fire station.
fs3_department_id	Integer	Fire department ID of third closest fire station.
fs3_department_type	Char(20)	Department type for third closest fire station.
fs3_station_id	Integer	Station ID of third closest fire station.
fs3_drivetime_ampeak	Double Precision	Driving time in minutes from third closest fire station during peak AM time.
fs3_drivetime_pmpeak	Double Precision	Driving time in minutes from third closest fire station during peak PM time.

Field Name	Type	Description
fs3_drivetime_offpeak	Double Precision	Driving time in minutes from third closest fire station during off-peak time.
fs3_drivetime_night	Double Precision	Driving time from third closest fire station at night.
fs3_drivedistance	Double Precision	Distance in miles from third closest fire station.
nearest_water_body	Double Precision	Distance (in feet) between location and nearest body of water.

Wildfire Risk

GeoEnrichment Wildfire Risk is built upon the FireRisk Pro data bundle. All of the attribute categories from FireRisk Pro are assigned to locations from the Address Fabric. Users with a pbKey(tm) can quickly integrate wildfire risk values into their processing. Information from mountain pine beetle kill areas is included in this dataset, as are burn perimeters from recent wildfires that have not yet been incorporated into FireRisk Pro. GeoEnrichment Wildfire Risk delivers all the elements of FireRisk Pro without the need for any GIS processing.

Wildfire Risk Data Fields

Field Name	Field Type	Description
pbkey	Char(12)	A unique identifier
fire_refid	Integer	Unique reference value for data records Note: Refid is not a static reference between product releases
fire_statecode	Char (2)	State abbreviation
fire_fipscode	Integer	Federal Information Processing Standard (FIPS) state code

Field Name	Field Type	Description
fire_risktype	Char (2)	IF = Interface, IM = Intermix, WL = Wildland
fire_risk50	Integer	Overall risk rating to reflect the predicted fire behavior and likelihood of ignition. Scale: 0 = Low Risk, 49 = High Risk. Refer Risk Data Suite Product Guide for important details on how to use this value for different values of RISKTYPE (such as Interface versus Intermix and Wildland). The RISK50 rating should always be used in conjunction with the RISKTYPE to understand the specific hazard(s).
fire_fireshedid	Integer	Fireshed identifier. Unique reference value when used with StateCode and RiskType Note: FireShedId is not a static reference between product releases
fire_riskdesc	Char (10)	Descriptive Risk category. Scale: Smoke Risk, Low, Moderate, High, Very High
fire_if_tier	Integer	Type of threat present in this area Scale: 0 = Flame Impingement/Embers/Smoke, 1 = Embers/Smoke, 2 = Smoke. Valid when RISKTYPE = IF
fire_im_freq	Integer	Likelihood of future wildfires based on simulation Scale: 0 = Least Likely, 49 = Most likely. Valid when RISKTYPE = IM
fire_im_fsprox	Integer	Distance to nearest fire station to reflect probability of a successful wildfire suppression or structure protection effort Scale: 0 = Closer to Fire Station, 49 = Farther from Fire Station. Valid when RISKTYPE = IM
fire_im_cntnui	Char (10)	Effect related to the continuity of burnable area (roads, bare ground, etc.) which may reduce wildfire severity Scale: Greatest mitigating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_im_pstfire	Integer	Likelihood of future wildfires based on where they have occurred in the past Scale: 0 = Least Likely, 49 = Most Likely. Valid when RISKTYPE = IM

Field Name	Field Type	Description
fire_im_severe	Integer	Severity of fire behavior based on topography (slope, aspect and elevation), prevailing weather patterns (based on weather readings at nation-wide stations) and the fuel type present (40 different subsets of grass, shrub and timber vegetation types) Scale: 0 = Lowest Severity, 49 = Highest Severity. Valid when RISKTYPE = IM
fire_im_adjmnt	Integer	Intermix risk adjustment due to weighted effect of aspect, crown fire, evc, foehn, golfcourse, roaddist, slope and waterdist values Scale: 0 = Greatest Mitigating Effect, 49 = Greatest Aggravating Effect. Valid when RISKTYPE = IM.
fire_im_aspect	Char(10)	Moisture drying effect relative to sun and topological slope Scale: Greatest mitigating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_im_crown	Char(10)	Crown fire effect Scale: Least aggravating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_im_vegcvr	Char(10)	Vegetation cover effect Scale: Greatest mitigating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_im_foehn	Char (10)	Warm dry wind effect Scale: Least aggravating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_im_golfcrs	Char (10)	Irrigated golf course effect Scale: Greatest mitigating effect (Low) to least mitigating effect (High). Valid when RISKTYPE = IM
fire_im_roadist	Char (10)	Impact of distance to nearest road on evacuation and fire suppression efforts. Scale: Greatest mitigating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_im_slope	Char (10)	Slope fire suppression effect Scale: Greatest mitigating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM

Field Name	Field Type	Description
fire_im_water	Char (10)	Availability of water sources Scale: Greatest mitigating effect (Low) to greatest aggravating effect (High). Valid when RISKTYPE = IM
fire_wl_freq	Integer	Likelihood of future wildfires based on simulation Scale: 0 = Least Likely, 49 = Most Likely. Valid when RISKTYPE = WL
fire_wl_fsprox	Integer	Impact of distance to nearest fire station on the probability of successful fire suppression or structure protection efforts. Scale: 0 = Closer to Fire Station, 49 = Farther from Fire Station. Valid when RISKTYPE = WL
fire_wl_nonburn	Char (10)	Effect related to the continuity of burnable area (roads, bare ground, snow and ice, etc.) which may reduce wildfire severity. Captures coarser-scale interruptions in fuels than IM_VEGCVR component Scale: Least mitigating (Low) to greatest mitigating (High). Valid when RISKTYPE = WL
fire_wl_pstfire	Integer	Likelihood of future wildfires based on where they have occurred in the past Scale: 0 = least likely, 49 = most likely. Valid when RISKTYPE = WL
fire_wl_severe	Integer	Severity of fire behavior based on topography (slope, aspect and elevation), prevailing weather patterns (based on weather readings at nation-wide stations) and the fuel type present (40 different subsets of grass, shrub and timber vegetation types) Scale: 0 = Lowest Severity, 49 = Highest Severity. Valid when RISKTYPE = WL
fire_beetle_flag	Char (1)	Indicates the presence of Mountain Pine Beetle (MPB) activity between 1997 and 2012. This information can be used as a general indicator of MPB presence but does not provide information about its pervasiveness or impact on fuel profile.
fire_fp_acres	Float	Calculated acreage inside of the fire perimeter
fire_fp_agency	Char (15)	Agency responsible for managing the fire

Field Name	Field Type	Description
fire_fp_year	Char (4)	Year the fire started
fire_fp_firenm	Char (50)	Name of the fire
fire_fp_date	Date	Date the ignition occurred
fire_dist_wui	Double	Distance to wildland urban interface (WUI).
fire_dist_high	Double	Distance to the closest high location RiskDesc
fire_dist_vh	Double	Distance to the closest very high location RiskDesc

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