USDA Forest Service, RMRS Fire Sciences Laboratory
Fire Effects and Fire Behavior Projects
Metadata for Wildland Fire Risk to Flammable Structures,
Version 2000

Table of Contents
USDA Forest Service, RMRS Fire Sciences Laboratory Fire Effects and Fire Behavior Projects Metadata for Wildland Fire Risk to Flammable Structures, Version 2000........................ 1
Identification_Information: .................................................................................................................. 1
Data_Quality_Information: ................................................................................................................... 3
Spatial_Data_Organization_Information: ............................................................................................. 5
Spatial_Reference_Information: ........................................................................................................... 5
Entity_and_Attribute_Information: ...................................................................................................... 6
Distribution_Information: ..................................................................................................................... 7
Metadata_Reference_Information: ...................................................................................................... 8

Identification_Information:

Citation
Citation_Information
Originator: USDA Forest Service, RMRS Fire Sciences Laboratory
Publication_Date: 20010115
Title: Wildland Fire Risk to Flammable Structures, V 1.0
Geospatial_Data_Presentation_Form: map
Publication_Information
Publication_Place: Missoula, Montana
Publisher: USDA Forest Service, RMRS Fire Sciences Laboratory
Description
Abstract:
The threat of wildland fire burning flammable structures is a national issue. Each year the risk increases from accumulating wildland fuels and building flammable structures adjacent to wildlands. We defined and mapped potential risk of wildland fire burning flammable structures for the conterminous United States. The map was an integration of three GIS data layers: Housing Density, Potential Fire Exposure, and Extreme Fire Weather Potential. Housing Density was a classification of human habitation ranging from wildland to city in units of houses per hectare. Housing Density was derived from estimates of ambient population. Potential Fire Exposure was a classification of vegetation types into fire behavior classes that exhibit
similar fire or heat intensity under extreme conditions. Extreme Fire Weather Potential was a classification of the average number of days per year where weather conditions, specifically temperature, relative humidity, and wind speed, were similar to conditions under which wildland fires had burned multiple structures in a single event. Flammable structures are structures that have a low resistance to ignitions. Wildland fires are vegetation fires that start and burn in unpopulated/undeveloped areas.

Purpose:
The purpose of this data is to provide a course-scale representation of wildland fire risk to flammable structures. The data are not intended to be summarized at a scale finer than the state level.

Time_Period_of_Content
Range_of_Dates/Times
Beginning_Date:
Ending_Date:

Status
Progress: Complete
Maintenance_and_Update_Frequency: Unknown

Spatial_Domain
Bounding_Coordinates
West_Bounding_Coordinate: -119.938095
East_Bounding_Coordinate: -65.5722885
North_Bounding_Coordinate: 46.6633530
South_Bounding_Coordinate: 23.6649513

Keywords
Theme
Theme_Keyword_Thesaurus: None
Theme_Keyword: fire
Theme_Keyword: risk
Theme_Keyword: wildland
Theme_Keyword: urban-interface
Theme_Keyword: flammable structures
Theme_Keyword: United States

Place
Place_Keyword_Thesaurus: None
Place_Keyword: United States

Access_Constraints:
None

Use_Constraints:

Point_of_Contact
Contact_Organization_Primary
Contact_Organization: USDA Forest Service, RMRS Fire Sciences Laboratory
Contact_Person: Jim Menakis
Contact_Position: GIS Analyst, Fire Effects
Contact_Address
Address_Type: Mailing Address
Address: P.O. Box 8089
City: Missoula
State_orProvince: MT
Postal Code: 59807
Country: USA
Contact Voice Telephone: (406) 329-4958
Contact Facsimile Telephone: (406) 329-4877
Contact Electronic Mail Address: jmenakis@fs.fed.us
Hours of Service: Monday-Friday, 8-5, Mountain Time
Native Data Set Environment:
Arc/Info version 7.2.1
Pathname = /fsfiles/unit/fe/feproj6/usajm/houserisk/d.version2000

Data Quality Information:

Attribute Accuracy
Attribute Accuracy Report: unknown
Logical Consistency Report:
Completeness Report:
Data set is complete
Positional Accuracy
Horizontal Positional Accuracy
Horizontal Positional Accuracy Report:
Unknown
Vertical Positional Accuracy
Vertical Positional Accuracy Report:
NONE
Lineage
Source Information
Source Citation
Citation Information
Originator:
Oak Ridge National Laboratory
Geographic Information Science & Technology
Publication Date: 19990418
Title: Landscan Global Population
Edition: 1
Geospatial Data Presentation Form: map
Publication Information
Publication Place: Oak Ridge, TN
Publisher: Oak Ridge National Laboratory
Other Citation Details:
Oak Ridge National Laboratory. 1999.
Landscan Global Population 1998 Database.
Source Scale Denominator: 0
Type of Source Media: CD
Source Time Period of Content
Time Period Information
Range of Dates/Times
Beginning Date: 19980101
Ending Date: 19981231
Source Currentness Reference:
Source Citation Abbreviation: ORNL
Source Contribution:
Provided original global ambient population per 30 Arc
second grid cell. Used to create Housing Density Layer.

Source Information
Source Citation
Citation Information
Originator:
U.S. Air Force Combat Climatology Center
National Climatic Data Center
Publication_Date: 20000207
Title: International Surface Weather Observations
Geospatial_Data_Presentation_Form: other
Publication Information
Publication Place: Asheville, NC
Publisher: U.S. AFCCC
Source_Scale_Denominator: 0
Type_of_Source_Media: CD
Source_Time_Period_of_Content
Time_Period_Information
Range_of_Dates/Times
Beginning_Date: 19820101
Ending_Date: 19971231
Source_Currentness_Reference:
Source_Citation_Abbreviation: AFCC
Source_Contribution:
Daily data of temperature, relative humidity, and wind speed measurements used to determine average number of days per year where extreme weather conditions were similar to conditions under which wildland fires burned structures. Used to create Extreme Fire Weather Potential layer.

Source Information
Source Citation
Citation Information
Originator:
USDA Forest Service, RMRS Fire Sciences Lab., Fire Effects Coarse-Scale Spatial Data for Wildland Fire & Fuel Management
Publication_Date: 19991103
Title: Potential Natural Vegetation Groups and Current Cover Types
Edition: Versions 2.0 and 1.0
Geospatial_Data_Presentation_Form: map
Publication Information
Publication Place: Missoula, MT
Publisher: RMRS Fire Sciences Lab., Fire Effects
Other_Citation_Details:
See www.fs.fed.us/fire/fuelman for full citation
Source_Scale_Denominator: 0
Type_of_Source_Media: digital
Source_Time_Period_of_Content
Time_Period_Information
Range_of_Dates/Times
Beginning_Date: 19990101
Ending_Date: 19991231
Source_Currentness_Reference:
Source_Citation_Abbreviation: CSFU
Source_Contribution:
Source of vegetation types classified into fire behavior classes that exhibit similar fire or heat intensity under extreme weather conditions.
LandScan Global Population 1998 Database (population density) was classified to number of houses per acre, where 1 house is equal to 3 people, to create the Housing Density Layer.

Potential Vegetation Groups and Current Cover Types were combined and classified into severe fire behavior classes that produce similar fire or heat intensity, creating the Potential Fire Exposure layer.

Average number of days per year during which weather conditions exceeded thresholds similar to past severe fire weather. Use to classify areas to Extreme Fire Weather Potential.

Housing Density, Potential Fire Exposure, and Extreme Fire Weather Potential were combined to create a matrix of all possible combinations. These combinations were grouped into classes of potential wildland fire risk to structures.

Spatial_Data_Organization_Information:

Direct_Spatial_Reference_Method: Raster

Raster_Object_Information
Raster_Object_Type: Grid Cell
Row_Count: 2871
Column_Count: 4572

Spatial_Reference_Information:
Planar
Map_Projection
Map_Projection_Name: Lambert Azimuthal Equal Area
Lambert_Azimuthal_Equal_Area
  Radius_of_sphere_of_reference: 6370997.00000
  Longitude_of_center_of_projection: -100 0 0.00
  Latitude_of_center_of_projection: 45 0 0.00
  False_Easting: 0.00000
  False_Northing: 0.00000
Planar_Coordinate_Information
  Planar_Coordinate_Encoding_Method: row and column
Coordinate_Representation
  Abscissa_Resolution: 1000
  Ordinate_Resolution: 1000
  Planar_Distance_Units: meters
Geodetic_Model
  Horizontal_Datum_Name: None
  Spheroid: Defined
  Semi-major_Axis: 6370997

Entity_and_Attribute_Information:

Detailed_Description
Entity_Type
  Entity_Type_Label: HOUSERISK.VAT
  Entity_Type_Definition: Grid Cell Value Attribute Table
  Entity_Type_Definition_Source: None
Attribute
  Attribute_Label: VALUE
  Attribute_Definition: cell value
  Attribute_Definition_Source: None
  Attribute_Domain_Values
    Range_Domain
      Range_Domain_Minimum: 1
      Range_Domain_Maximum: 9
      Beginning_Date_of_Attribute_Values: 20010115
Attribute
  Attribute_Label: COUNT
  Attribute_Definition: number of cells with said value
  Attribute_Definition_Source: None
  Attribute_Domain_Values
    Range_Domain
      Range_Domain_Minimum: 7621
      Range_Domain_Maximum: 2741521
      Attribute_Units_of_Measure: cells
      Beginning_Date_of_Attribute_Values: 20010115
Attribute
  Attribute_Label: HOUSERISK
  Attribute_Definition: wildland fire risk to structures
    Potential risk class of wildland fire burning flammable structures.
Attribute Definition: None

Attribute Domain Values
Range Domain
Range Domain Minimum: 1
Range Domain Maximum: 9
Beginning Date of Attribute Values: 20010115

Attribute
Attribute Label: RISK_CLASS
Attribute Definition:
risk class label
Attribute Definition Source: None

Attribute Domain Values
Unrepresentable Domain: Character field
Beginning Date of Attribute Values: 20010115

Attribute
Attribute Label: COLORNAME_SHD
Attribute Definition:
shadeset value
Attribute Definition Source: None

Attribute Domain Values
Range Domain
Range Domain Minimum: 4
Range Domain Maximum: 129
Beginning Date of Attribute Values: 20010115

Distribution Information:

Distributor
Contact Information
Contact Organization Primary
Contact Organization: USDA Forest Service, RMRS Fire Sciences Laboratory
Contact Person: Jim Menakis
Contact Position: GIS Analyst, Fire Effects
Contact Address
Address Type: Mailing Address
Address: P.O. Box 8089
City: Missoula
State or Province: MT
Postal Code: 59807
Country: USA
Contact Voice Telephone: (406) 329-4958
Contact Facsimile Telephone: (406) 329-4877
Contact Electronic Mail Address: jmenakis@fs.fed.us
Hours of Service: Monday-Friday, 8-5, Mountain Time

Distribution Liability:
Users must assume responsibility to determine the usability of this data for their purposes.

Standard Order Process
Digital Form
Digital Transfer Information
Format Name: Arc/Info Export
Format Version Number: 7.1.2