ACPF Field Boundary Dataset: Illinois

Shapefile

Thumbnail Not Available
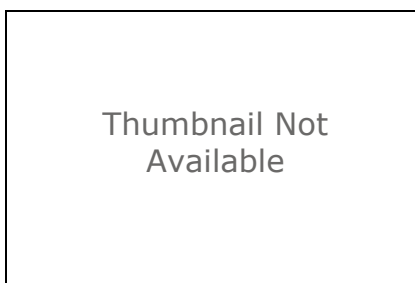
Tags

United States Department of Agriculture (USDA), USDA/ARS, Agricultural Conservation Planning Framework, ACPF, Illinois, scientificInformation, Farming, boundaries, Field Boundaries, Digitizing, NASS Crop Data Layer, conservation planning

Summary

Improving the quality of water discharged from agricultural watersheds requires comprehensive and adaptive approaches for planning and implementing conservation practices. These measures will need to consider landscape hydrology, distributions of soil types, land cover, and crop distributions in an integrated manner. The two most consistent challenges to these efforts will be consistency and reliability of data, and the capacity to translate conservation planning from watershed to farm and field scales. The translation of scale is required because, while conservation practices can be planned based on a watershed scale framework, they must be implemented by landowners in specific fields and riparian sites that are under private ownership. To support these goals, it has been necessary to develop planning approaches, high-resolution spatial datasets, and conservation practice assessment tools that will allow the agricultural and conservation communities to characterize and mitigate these challenges. The field boundary dataset represents a spatial framework for assembling and maintaining geospatial data to support conservation planning at the scale where conservation practices are implemented.

Description

This field boundaries dataset has been assembled to support field-scale agricultural conservation planning using the USDA/ARS Agricultural Conservation Planning Framework (ACPF). The original data used to create this database are the Farm Service Agency's (FSA) pre-2008 Farm Bill Common Land Unit (CLU) datasets. A portion of metadata found herein pertains to the USDA FSA CLU. The remaining information has been developed to reflect the repurposing of the data in its aggregated form. It is important to note that all USDA programmatic and ownership information that was associated with the original data have been removed and has not been retained or archived by the ARS. Beyond that, these data has been extensively edited to reflect crop-specific land use consistent with land cover as derived from NASS Crop Data Layer datasets and aerial photography, and no longer reflects discrete ownership patterns.

The ACPF field boundaries feature class incorporates two additonal resources that form the Illinois ACPF Land Use database. The Illinois ACPF Fields Crop History table holds the dominant land use class, derived from the NASS CDL, for individual fields from 2010 to 2020. The Illinois ACPF Land Use table hold summary land use information for individual fields for 2015 to 2020 including an assigned General Land Use (GenLU) that respesent the cropping system over thar period. In lieu of a data dictionary for these resources, each dataset has a FGDC-compliant metadata file using the North American ISO 19115-2003 profile in .xml format.

FSA: The common land unit (CLU) dataset consists of digitized farm tract and field boundaries

and associated attribute data. The USDA Farm Service Agency (FSA) defines farm fields as agricultural land that is delineated by natural and man-made boundaries such as road ways, tree lines, waterways, fence lines, etc. Field boundaries are visible features that can be identified and delineated on aerial photography and digital imagery. Farm tracts are defined by FSA as sets of contiguous fields under single ownership. Common land units are used to administer USDA farm commodity support and conservation programs in a GIS environment. The CLU data set was prepared by digitizing farm tracts and fields using 1:7920 scale rectified photomaps that have been maintained by FSA in USDA Field Service Centers. Using the photomaps as reference tract and field boundaries were digitized on-screen with digital orthophotography using ESRIs (Environmental Systems Research Institute) ArcView GIS Product. Each of the boundaries of the CLU are digitized to a tolerance of 3 meters (approximately 10 feet) from ground features visible on the digital orthophotograph. The base ortho imagery was produced by mosaicking digital orthophoto quarter quads (DOQs) into a seamless county image. The CLU were digitized from an image base of digital ortho quadrangles mosaiked together creating a seamless image base. The moasaicking process eliminates or minimizes any offset that would normally be present between standard USGS quarter quadrangles. CLU datasets are projected in the UTM coordinate system, NAD 83.

Credits

USDA/ARS National Laboratory for Agriculture and the Environment; USDA Farm Service Agency

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Extent
    West   -91.689404   **East**   -87.049585
    North   42.666529   **South**   36.892307

Scale Range
    Maximum (zoomed in)   1:5,000
    Minimum (zoomed out) 1:500,000

ArcGIS Metadata ▶

Topics and Keywords ▶

THEMES OR CATEGORIES OF THE RESOURCE   farming, planningCadastre, geoscientificInformation, boundaries

* CONTENT TYPE   Downloadable Data
   EXPORT TO FGDC CSDGM XML FORMAT AS RESOURCE DESCRIPTION   No

PLACE KEYWORDS   Midwestern United States, Illinois

TEMPORAL KEYWORDS   2010-2020 Aerial photography, 2010-2020 NASS Crop Data Layer

THEME KEYWORDS   USA, United States Department of Agriculture (USDA), geoscientificInformation, farming, boundaries, field boundaries, farming, conservation planning

Hide Topics and Keywords ▲

Citation ▶

TITLE   ACPF Field Boundary Dataset: Illinois
PUBLICATION DATE   2020-04-01   00:00:00

EDITION   1

PRESENTATION FORMATS   digital map
FGDC GEOSPATIAL PRESENTATION FORMAT   vector digital data

Hide Citation ▲

Citation Contacts ▶

RESPONSIBLE PARTY
   ORGANIZATION'S NAME   USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment
   INDIVIDUAL'S NAME   David James
   CONTACT'S POSITION   Geographic Information Specialist
   CONTACT'S ROLE   originator

Hide Citation Contacts ▲

Resource Details ▶

DATASET LANGUAGES   English (UNITED STATES)
DATASET CHARACTER SET   utf8 - 8 bit UCS Transfer Format

STATUS   completed
SPATIAL REPRESENTATION TYPE   vector

* PROCESSING ENVIRONMENT   Version 6.2 (Build 9200) ; Esri ArcGIS 10.8.1.14362

CREDITS
   USDA/ARS National Laboratory for Agriculture and the Environment; USDA Farm Service Agency

ARCGIS ITEM PROPERTIES
   * NAME   IL_ACPFfields2020
   * SIZE   376.189
   * LOCATION   file://
\\CURLEW\D$\ACPFproc\ADCcontributions\exportedForADC\Illinois\IL_ACPFfields2020.shp
      * ACCESS PROTOCOL   Local Area Network

Hide Resource Details ▲

Extents ▶

EXTENT
   DESCRIPTION

Illinois

GEOGRAPHIC EXTENT
  BOUNDING RECTANGLE
    EXTENT TYPE   Extent used for searching
    * WEST LONGITUDE   -91.689404
    * EAST LONGITUDE   -87.049585
    * NORTH LATITUDE   42.666529
    * SOUTH LATITUDE   36.892307
    * EXTENT CONTAINS THE RESOURCE   Yes

EXTENT IN THE ITEM'S COORDINATE SYSTEM
  * WEST LONGITUDE   379386.665100
  * EAST LONGITUDE   730583.437600
  * SOUTH LATITUDE   1570558.004400
  * NORTH LATITUDE   2194740.256800
  * EXTENT CONTAINS THE RESOURCE   Yes

Hide Extents ▲

Resource Points of Contact ▶

POINT OF CONTACT
  INDIVIDUAL'S NAME   David James
  ORGANIZATION'S NAME   USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment
  CONTACT'S ROLE   point of contact

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      COUNTRY   US
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    Hide Contact information ▲

Hide Resource Points of Contact ▲

Resource Maintenance ▶

RESOURCE MAINTENANCE
  UPDATE FREQUENCY   not planned

Hide Resource Maintenance ▲

Resource Constraints ▶

LEGAL CONSTRAINTS
  LIMITATIONS OF USE

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Hide Resource Constraints ▲

Spatial Reference ▶

ARCGIS COORDINATE SYSTEM
* TYPE Projected
* GEOGRAPHIC COORDINATE REFERENCE GCS_North_American_1983
* PROJECTION USA_Contiguous_Albers_Equal_Area_Conic_USGS_version
* COORDINATE REFERENCE DETAILS
PROJECTED COORDINATE SYSTEM
WELL-KNOWN IDENTIFIER 102039
X ORIGIN -16901100
Y ORIGIN -6972200
XY SCALE 266467840.99085236
Z ORIGIN -100000
Z SCALE 10000
M ORIGIN -100000
M SCALE 10000
XY TOLERANCE 0.001
Z TOLERANCE 0.001
M TOLERANCE 0.001
HIGH PRECISION true
LATEST WELL-KNOWN IDENTIFIER 102039
WELL-KNOWN TEXT PROJCS
["USA_Contiguous_Albers_Equal_Area_Conic_USGS_version",GEOGCS
["GCS_North_American_1983",DATUM["D_North_American_1983",SPHEROID
["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT
["Degree",0.0174532925199433]],PROJECTION["Albers"],PARAMETER
["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER["Central_Meridian",-
96.0],PARAMETER["Standard_Parallel_1",29.5],PARAMETER
["Standard_Parallel_2",45.5],PARAMETER["Latitude_Of_Origin",23.0],UNIT
["Meter",1.0],AUTHORITY["Esri",102039]]

REFERENCE SYSTEM IDENTIFIER
DIMENSION horizontal
* VALUE 102039
* CODESPACE Esri
* VERSION 8.1.2

Hide Spatial Reference ▲

Spatial Data Properties ▶

VECTOR ►
    * LEVEL OF TOPOLOGY FOR THIS DATASET   geometry only

GEOMETRIC OBJECTS
   FEATURE CLASS NAME   IL_ACPFfields2020
   * OBJECT TYPE   composite
   * OBJECT COUNT   759348

Hide Vector ▲

ARCGIS FEATURE CLASS PROPERTIES   ►
   FEATURE CLASS NAME   IL_ACPFfields2020
   * FEATURE TYPE   Simple
   * GEOMETRY TYPE   Polygon
   * HAS TOPOLOGY   FALSE
   * FEATURE COUNT   759348
   * SPATIAL INDEX   TRUE
   * LINEAR REFERENCING   FALSE

Hide ArcGIS Feature Class Properties ▲

Hide Spatial Data Properties ▲

Data Quality ►

SCOPE OF QUALITY INFORMATION   ►
   RESOURCE LEVEL   feature
   SCOPE DESCRIPTION
     ATTRIBUTES
      Yes

Hide Scope of quality information ▲

Hide Data Quality ▲

Distribution ►

DISTRIBUTOR   ►
   CONTACT INFORMATION
     INDIVIDUAL'S NAME   David James
     ORGANIZATION'S NAME   USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment
     CONTACT'S ROLE   distributor

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         POSTAL CODE   50011

COUNTRY   US
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Hide Contact information ▲

Hide Distributor ▲

DISTRIBUTION FORMAT
  VERSION   10.4.1
  * NAME   Shapefile

TRANSFER OPTIONS
  * TRANSFER SIZE   376.189

  ONLINE SOURCE
    LOCATION   none

Hide Distribution ▲

Fields ►

DETAILS FOR OBJECT IL_ACPFfields2020 ►
  * TYPE   Feature Class
  * ROW COUNT   759348
  DEFINITION
    File geodatabase feature class of field boundaries for individual HUC12 watersheds

  DEFINITION SOURCE
    Author

  FIELD FID ►
    * ALIAS   FID
    * DATA TYPE   OID
    * WIDTH   4
    * PRECISION   0
    * SCALE   0
    * FIELD DESCRIPTION
      Internal feature number.

    * DESCRIPTION SOURCE
      Esri

    * DESCRIPTION OF VALUES
      Sequential unique whole numbers that are automatically generated.

    Hide Field FID ▲

  FIELD isAG ►
    * ALIAS   isAG
    * DATA TYPE   Integer
    * WIDTH   5

* PRECISION   5
* SCALE   0
FIELD DESCRIPTION
   Designation of agricultural and non-agricultural land use

DESCRIPTION SOURCE
   Author

LIST OF VALUES
   VALUE   0
   DESCRIPTION   non-agricultural land
   ENUMERATED DOMAIN VALUE DEFINITION SOURCE   Originator

   VALUE   1
   DESCRIPTION   agricultural land, excluding pasture (P) class
   ENUMERATED DOMAIN VALUE DEFINITION SOURCE   Originator

   VALUE   2
   DESCRIPTION   Pasture|Grass|Hay
   ENUMERATED DOMAIN VALUE DEFINITION SOURCE   Originator

   Hide Field isAG ▲

FIELD Shape ▶
   * ALIAS   Shape
   * DATA TYPE   Geometry
   * WIDTH   0
   * PRECISION   0
   * SCALE   0
   FIELD DESCRIPTION
      Feature geometry.

   DESCRIPTION SOURCE
      ESRI

   LIST OF VALUES
      VALUE   Coordinates defining the features.
      DESCRIPTION   Coordinates
      ENUMERATED DOMAIN VALUE DEFINITION SOURCE   ESRI

   * DESCRIPTION OF VALUES
      Coordinates defining the features.

   Hide Field Shape ▲

FIELD Shape_Area ▶
   * ALIAS   Shape_Area
   * DATA TYPE   Double
   * WIDTH   19
   * PRECISION   0
   * SCALE   0
   FIELD DESCRIPTION
      Area of feature in internal units squared.

DESCRIPTION SOURCE
ESRI

DESCRIPTION OF VALUES
Positive real numbers that are automatically generated.

Hide Field Shape_Area ▲

FIELD updateYr ▶
* ALIAS   updateYr
* DATA TYPE   Integer
* WIDTH   5
* PRECISION   5
* SCALE   0

FIELD DESCRIPTION
The year in which field cboundaries were edtied to be crop specific. Fields greater than 40 acres and in row crop production were considered candidates for editing.

DESCRIPTION SOURCE
Author

Hide Field updateYr ▲

FIELD FBndID ▶
* ALIAS   FBndID
* DATA TYPE   String
* WIDTH   254
* PRECISION   0
* SCALE   0

FIELD DESCRIPTION
A unique field identifier constructed by concatenating the HUC12 identification code and a sequential number.

DESCRIPTION SOURCE
Author

DESCRIPTION OF VALUES
A unique field identifier constructed by concatenating the HUC12 identification code and a sequential number.

Hide Field FBndID ▲

FIELD Shape_Leng ▶
* ALIAS   Shape_Leng
* DATA TYPE   Double
* WIDTH   19
* PRECISION   0
* SCALE   0

Hide Field Shape_Leng ▲

FIELD Acres ►
  * ALIAS   Acres
  * DATA TYPE   Single
  * WIDTH   13
  * PRECISION   0
  * SCALE   0
  FIELD DESCRIPTION
     field size in acres

  DESCRIPTION SOURCE
     calculated

  DESCRIPTION OF VALUES
     Calculated values

      Hide Field Acres ▲

      Hide Details for object IL_ACPFfields2020 ▲

      Hide Fields ▲

Metadata Details ►

METADATA LANGUAGE   English (UNITED STATES)
METADATA CHARACTER SET   utf8 - 8 bit UCS Transfer Format

SCOPE OF THE DATA DESCRIBED BY THE METADATA   dataset
SCOPE NAME   * dataset

* LAST UPDATE   2021-09-12

ARCGIS METADATA PROPERTIES
  METADATA FORMAT   ArcGIS 1.0
  STANDARD OR PROFILE USED TO EDIT METADATA   NAP
  METADATA STYLE   North American Profile of ISO19115 2003

  CREATED IN ARCGIS FOR THE ITEM   2021-08-27   14:54:08
  LAST MODIFIED IN ARCGIS FOR THE ITEM   2021-09-12   20:17:03

  AUTOMATIC UPDATES
    HAVE BEEN PERFORMED   Yes
    LAST UPDATE   2021-09-12   20:16:22

  ITEM LOCATION HISTORY
    ITEM COPIED OR MOVED   2015-04-13   08:37:18
      FROM   D:\Data\ACPF\ACPF_Database\ACPF_MetaData\FldBndy_meta\ACPF_FieldBndy_meta
      TO   \\NLAE08\Data\EDF_ACPF\ACPF_MetaData\FldBndy_meta\ACPF_FieldBndy_meta (1)

      Hide Metadata Details ▲

Metadata Contacts ►

METADATA CONTACT

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ORGANIZATION'S NAME   USDA, Agricultural Research Service, National Laboratory of Agriculture and the Environment
CONTACT'S ROLE   point of contact

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Hide Contact information ▲

Hide Metadata Contacts ▲

Metadata Maintenance ▶

MAINTENANCE
DATE OF NEXT UPDATE   2021-04-01   00:00:00
UPDATE FREQUENCY   not planned

Hide Metadata Maintenance ▲

Metadata Constraints ▶

SECURITY CONSTRAINTS
CLASSIFICATION   unclassified
CLASSIFICATION SYSTEM   None

ADDITIONAL RESTRICTIONS
None

Hide Metadata Constraints ▲

Thumbnail and Enclosures ▶

ENCLOSURE
ENCLOSURE TYPE   File
DESCRIPTION OF ENCLOSURE   original metadata
ORIGINAL METADATA DOCUMENT, WHICH WAS TRANSLATED   yes
SOURCE METADATA FORMAT   fgdc

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FGDC Metadata (read-only) ▼