Privacy Impact Assessment

for

NRE FS Forest Inventory and Analysis
(NRE FS FIA)

Policy, E-Government and Fair Information Practices

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Abstract

The NRE FS Forest Inventory and Analysis (NRE FS FIA) system provides custom, internally developed, applications that enable the Forest Service Forest Inventory and Analysis (FIA) business unit to collect, manage, analyze, and report US land usage data supporting Congressional requirements. This PIA is being conducted because the NRE FS FIA system includes personally identifiable information associated with landowners, producers, and FIA employees.

Overview

The Forest Inventory and Analysis (FIA) program of the USDA Forest Service has been in continuous operation since 1930 with a mission to:

> "make and keep current a comprehensive inventory and analysis of the present and prospective conditions of and requirements for the renewable resources of the forest and rangelands of the US."

The FIA Program collects, analyzes, and reports information on the status and trends of America's forests: how much forest exists, where it exists, who owns it, and how it is changing, as well as how the trees and other forest vegetation are growing and how much has died or has been removed in recent years.

This information can be used in many ways, such as in evaluating wildlife habitat conditions, assessing the sustainability of ecosystem management practices, and supporting planning and decision-making activities undertaken by public and private enterprises.

The NRE FS FIA system consists of 19 applications, hosted within an internal USDA cloud environment, that support four key business processes: Techniques and Research, Analysis, Information Management and Compilation, and Data Acquisition.

The processes are supported by both FIA and partner professionals who review and evaluate alternative strategies to resolve problems and make recommendations that support efficient solutions.

Examples of specific goals and priorities for the processes include:

> • Techniques Research—This process develops, tests, and documents sampling and estimation methods. These professionals routinely study fieldwork as part of a cost/ benefit analysis to identify ways to improve efficiency and effectiveness.

> • Analysis—This process produces the 5-year report template and compares core table requirements with the core manual variables for consistency. They review the implementation of the National Woodland Owner Survey (NWOS),

develop options for integrating remote sensing products that add value, and provide a focal point for the addition of new attributes and indicators.

• Information Management and Compilation—

This process is divided into three major subgroups:

1) Portable Data Recorder Team to develop and maintain PDR software to meet core national needs.
2) Data Distribution Team to develop the next generation of FIA data distribution tools.
3) Development Team to develop and coordinate strategies for updates to National Information Management System (NIMS), accommodate the operational use of remote sensing, and develop data distribution strategies.

• Data Acquisition—This process maintains documentation annually for our nationally consistent core field procedures through National Field Manuals http://fia.fs.fed.us/library/field-guides-methods-proc/

NRE FIA system applications support four major business processes: Data Acquisition, Analysis, Information Management and Techniques and Research.

> **Data Acquisition applications include:** FIA-BOSS, CIAO, FIA MIDAS, MIDAS-LUPE (FIA)
> **Analysis applications include:** Datamart (FIA), DATIM, eValidator (FIA), eValidator 2.0, URBAN Forest Datamart
> **Information Management applications include:** FIA – Maestro, FIA LO RMRS Plot Photo, FIA UMAESTRO, FIA-NIMS-CS, Lookup Tool, NWOS (FIA) - Table Maker, RMRS Plot Photo (FIA)
> **Techniques and Research applications include:** FIA RStudio, RMRS Shiny, TPO, Snipet, SRS Web (FIA)

Of the above, only the following applications contain PII: CIAO, FIA-Maestro, FIA MIDAS, FIA UMAESTRO, FIA-BOSS, MIDAS-LUPE (FIA), and URBAN Forest Datamart

Section 1.0 Characterization of the Information

The following questions are intended to define the scope of the information requested and/or collected as well as reasons for its collection as part of the program, system, rule, or technology being developed.

1.1   Identification

What information is collected, used, disseminated, or maintained in the system?

The FIA Program collects, analyzes, and reports information on the status and trends of America's forests: how much forest exists, where it exists, who owns it, and how it is changing, as well as how the trees and other forest vegetation are growing and how much has died or has been removed in recent years.

This includes names, user-id's and task information associated with individuals who may access, maintain, or support these efforts.

1.2   Source

What is the source(s) of the information in the system?

 Sources for the content contained within NRE FS FIA include:

- USDA employees.
- Contractors or other entities working on behalf of USDA.
- Landowners

1.3   Justification

Why is the information being collected, used, disseminated, or maintained?

This information is collected, used, disseminated and maintained to make and keep current a comprehensive inventory and analysis of the present and prospective conditions of and requirements for the renewable resources of the forest and rangelands of the United States.

1.4   Collection

How is the information collected?

Information on private woodland owners is initially collected from public records, such as property tax rolls. The information is then maintained and updated with information received from owners who voluntarily participate in the National Woodland Owner Survey.

The system also uses publicly available landowner records, imagery, and plot records to derive current land-usage information.

1.5   Validation

How will the information be checked for accuracy?

The FIA has documented nationally consistent core field procedures through National Field Manuals http://fia.fs.fed.us/library/field-guides-methods-proc/ to ensure the validity and consistency of data collection efforts.

Once collected, the information is then maintained and updated with information received from owners who voluntarily participate in the National Woodland Owner Survey and during recurring reviews and updates of publicly available records, imagery, and plot records.

1.6   Authority

What specific legal authorities, arrangements, and/or agreements defined the collection of information?

1974 Forest and Rangeland Renewable Resources
Planning Act (P.L. 93-378)
This Act directed the Secretary of Agriculture to "…make and keep current a comprehensive inventory and analysis of the present and prospective conditions of and requirements for the renewable resources of the forest and rangelands of the United States." This repeats the mandate of the 1928 Forest Research Act as a forest resource information foundation for national assessments.

1978 Forest and Rangeland Renewable Resources
Research Act (P.L. 95-307)
This legislation replaced the earlier forestry research legislation of 1928, repeated the amendment contained in the 1928 and 1974 legislation to "make and keep current a comprehensive inventory and analysis of the present and prospective conditions of and requirements for the renewable resources of the forest and rangelands of the United States".
This Act was amended in 1999 with the addition of Section 3(e), specifically requiring FIA to implement an annualized inventory including
(1) a proportionate annual inventory of each State every year;
(2) a 5-year report for each State;
(3) national standards and definitions for reporting;
(4) provisions to ensure protection of private property rights; and

(5) a process for employing new technologies, global
positioning systems, and other advanced technologies.

5 U.S.C. 1302, 2951, 3301, 3372, 4118, 8347, and Executive Orders 9397, as amended by 13478, 9830, and 12107

7 U.S.C 8791

1.7   Risk Mitigation

Given the amount and type of data collected, discuss the privacy risks identified and how they were mitigated.

Records in this system are safeguarded in accordance with applicable rules and policies, including all applicable USDA automated systems security and access policies. Strict controls have been imposed to minimize the risk of compromising the information that is being stored. Access to the computer system containing the records in this system is limited to those individuals who have a need to know the information for the performance of their official duties and who have appropriate clearances or permissions. All records containing personal information are maintained in secured file cabinets or are accessed by unique passwords and logon procedures. Only those employees with a need-to-know in order to perform their duties will be able to access the information. Encryption is used to protect data at rest and in transit.

Section 2.0 Uses of the Information

The following questions are intended to delineate clearly the use of information and the accuracy of the data being used.

2.1   Usage

Describe all the uses of information.

1. Disclose to employees of USDA, agency contractors, grantees, experts, consultants, or volunteers who have been engaged by the agency to assist in the performance of a service related to this system of records and who need to have access to the records in order to perform the activity.

2. As required by statute,
      a. To publish an annualized inventory including
           (1) a proportionate annual inventory of each State every year;
           (2) a 5-year report for each State;

      b. To make and keep current a comprehensive inventory and analysis of the present and prospective conditions of and requirements for the renewable resources of the forest and rangelands of the United States

2.2   Analysis and Production

What types of tools are used to analyze data and what type of data may be produced?

Data analysis tools including statistical and business intelligence application suites, geographic mapping and visualization tools, and dynamic report generation tools may be used to generate trend reports, aggregate reports, graphs and forward projections.

2.3   Commercial/Public Use

If the system uses commercial or publicly available data, please explain why and how it is used

The system uses publicly available landowner records, imagery, and plot records to create Congressionally mandated land usage reports and forecasts.

2.4   Risk Mitigation

Describe any types of controls that may be in place to ensure that information is handled in accordance with the above described uses.

All electronic records are maintained in a secure, password-protected, database and stored on secure servers in the Digital Infrastructure Services Center (DISC) datacenter in Kansas City, Missouri. The server is protected by a firewall, and a password is required for access. Access is limited to the database manager and to personnel authorized by the database manager. Data is encrypted in-transit and in-storage.

Information and reports presented to the public are transformed into a statistical or aggregate form without naming any— (i) individual owner, operator, or producer; or (ii) specific data gathering site.

Section 3.0 Retention

The following questions are intended to outline how long information will be retained after the initial collection.

3.1   Time Period

How long is information retained?

> Retention period is 30 years, records are maintained under USFS file code 4610.

3.2   Approval

Has the retention period been approved by the component records officer and the National Archives and Records Administration (NARA)?

As stated in Section 3.1, NRE FS FIA information is retained for a minimum of thirty (30) years. A meeting was held with NARA representative William "Chris" Meadows on 8/4/2022, to obtain guidance and approval on the appropriate section of the FSH 6209.11-Records Management Handbook 2020 and retention requirements. Mr. Meadows provided guidance that NRE FS FIA records fall under USFS file code, "4610-Programs (Inventory and Monitoring Research)".

3.3   Risk Mitigation

Please discuss the risks associated with the length of time data is retained and how those risks are mitigated.

The system's information is retained and disposed of in accordance with the appropriate General Records Schedules of the National Archives and Records Administration.

Records in this system are safeguarded in accordance with applicable rules and policies, including all applicable USDA automated systems security and access policies. Strict controls have been imposed to minimize the risk of compromising the information that is being stored. Access to the computer system containing the records in this system is limited to those individuals who have a need to know the information for the performance of their official duties and who have appropriate clearances or permissions All records containing personal information are maintained in secured file cabinets or are accessed by unique passwords and logon procedures. Only those employees with a need-to-know in order to perform their duties will be

able to access the information. Encryption is used to protect data at rest and in transit

Section 4.0 Internal Sharing and Disclosure

The following questions are intended to define the scope of sharing within the United States Department of Agriculture.

4.1   Identification and Purpose

With which organization(s) outside of the Forest Service, but still within the Department of Agriculture is the information shared? What information is shared and for what purpose?

Disclosed to employees of USDA's, agency contractors, grantees, experts, consultants, or volunteers who have been engaged by the agency to assist in the performance of a service related to this system of records as may be required to comply with Federally mandated land-usage reporting and who need to have access to the records in order to perform the activity.

4.2   Delivery and Disclosure

How is the information transmitted or disclosed?

Records in this system are safeguarded in accordance with applicable rules and policies, including all applicable USDA automated systems security and access policies. Only those employees with a need-to-know in order to perform their duties will be able to access the information. Encryption is used to protect data at rest and in transit.

Prior to delivery, contractors are required to acknowledge their responsibility for safeguarding PII that may be accessible as part of executing the contract. This includes contract stipulations for safeguarding any PII.

4.3   Risk Mitigation

Considering the extent of internal information sharing, discuss the privacy risks associated with the sharing and how they were mitigated.

> Records in this system are safeguarded in accordance with applicable rules and policies, including all applicable USDA automated systems security and

access policies. Strict controls have been imposed to minimize the risk of compromising the information that is being stored. Access to the computer system containing the records in this system is limited to those individuals who have a need to know the information for the performance of their official duties and who have appropriate clearances or permissions All records containing personal information are maintained in secured file cabinets or are accessed by unique passwords and logon procedures. Only those employees with a need-to-know in order to perform their duties will be able to access the information. Encryption is used to protect data at rest and in transit.

Contractors are required to acknowledge their responsibility for safeguarding PII that may be accessible as part of executing the contract. This includes contract stipulations for safeguarding any PII.

Section 5.0 External Sharing and Disclosure

The following questions are intended to define the content, scope, and authority for information sharing external to USDA which includes Federal, state and local government, and the private sector.

5.1   Identification and Purpose

With which external organization(s), outside of both the Forest Service and the Department of Agriculture, is the information shared? What information is shared, and for what purpose?

State forest inventory information is shared with employees of USDA, agency contractors, grantees, experts, consultants, or volunteers who have been engaged by the agency to assist in the performance of a service related to this system of records and who need to have access to the records in order to perform the activity. The shared information does not include PII.

5.2   Compatibility

Is the sharing of personally identifiable information outside the Department compatible with the original collection? If so, is it covered by an appropriate routine use in a SORN?
If so, please describe, provide SORN name and hyperlink URL to text.
If not, please describe under what legal mechanism the program or system is allowed to share the personally identifiable information outside of USDA.

N/A

5.3   Delivery and Security Measures

How is the information shared outside the Department and what security measures safeguard its transmission?

N/A

5.4   Risk Mitigation

Given the external sharing, explain the privacy risks identified and describe how they were mitigated.

N/A

Section 6.0 System of Records Notice (SORN)

The following questions are directed at notice to the individual of the scope of information collected, the right to consent to uses of said information, and the right to decline to provide information.

6.1 Requirement and Identification

Does this system require a SORN?
If so, please provide SORN name and hyperlink URL to text.
If a SORN is not required, answer "No" to this question, and "N/A" for questions 6.2 through 6.5.

Yes, this system relies upon 2 existing SORNs:

OPM-GOVT-1 and National Woodland Owners Database, USDA/FS–58

6.2 Individual Notification

Was notice provided to the individual prior to collection of information?

Yes

6.3 Right to Decline

Do individuals have the opportunity and/or right to decline to provide information?

Yes

6.4 Right of Consent

Do individuals have the right to consent to particular uses of the information? If so, how does the individual exercise the right?

No

6.5 Risk Mitigation

Describe how notice is provided to individuals, and how the risks associated with individuals being unaware of the collection are mitigated.

Individuals may request information regarding this system of records, or information as to whether the system contains records pertaining to them from the Freedom of

Information Act and Privacy Act Officer, USDA Forest Service, 1400 Independence Avenue SW., Mailstop 1143, Washington, DC 20250–1143, wo_foia@fs.fed.us, (202) 205–1542.

Section 7.0 Access, Redress and Correction

The following questions are directed at an individual's ability to ensure the accuracy of the information collected about them.

7.1   Access

What are the procedures that allow individuals to gain access to their information?

Individuals who wish to gain access to or amend records pertaining to them should submit a written request to the Freedom of Information Act and Privacy Act Officer, USDA Forest Service, 1400 Independence Avenue SW., Mailstop 1143, Washington, DC 20250–1143, (202) 205–1542. The envelope should be marked ''Privacy Act Request.'' or contact a regional FOIA Contact Service Center:

FOIA Contact Service Centers
https://www.fs.usda.gov/about-agency/foia/contact-service-centers

7.2   Correction

What are the procedures for correcting inaccurate or erroneous information?

Individuals may request the correction of inaccurate or erroneous information regarding this system of records, or information as to whether the system contains records pertaining to them from the Freedom of Information Act and Privacy Act Officer, USDA Forest Service, 1400 Independence Avenue SW., Mailstop 1143, Washington, DC 20250–1143, (202) 205–1542. The envelope should be marked ''Privacy Act Request.'' or contact a regional FOIA Contact Service Center.

Alternatively, individuals may access and update their information within the National Woodland Survey Database using their account login. This database resides outside of the NRE FS FIA boundary.

In addition, the Agency performs 3-5 year reviews and manually updates landowner and land-usage information from available public information and land-owner surveys.

7.3   Notification

How are individuals notified of the procedures for correcting their information?

Individuals may request information regarding this system of records, or information as to whether the system contains records pertaining to them from the Freedom of Information Act and Privacy Act Officer, USDA Forest Service, 1400 Independence Avenue SW., Mailstop 1143, Washington, DC 20250–1143, (202) 205–1542 or contact a regional FOIA Contact Service Center.

7.4 Redress Alternatives

If no formal redress is provided, what alternatives are available to the individual?

N/A

7.5 Risk Mitigation

Please discuss the privacy risks associated with the redress available to individuals and how those risks are mitigated.

The organization must ensure the individual seeking redress is the individual to whom the PII pertains. When seeking records about yourself from this system of records or any other Departmental system of records, your request must conform with the Privacy Act regulations set forth in 6 CFR part 5. You must first verify your identity, meaning that you must provide your full name, current address, and date and place of birth. You must sign your request, and your signature must either be notarized or submitted under 28 U.S.C. 1746, a law that permits statements to be made under penalty of perjury as a substitute for notarization.

Section 8.0 Technical Access and Security

The following questions are intended to describe technical safeguards and security measures.

8.1   Procedures

What procedures are in place to determine which users may access the system and are they documented?

Users must request access to information within this system through their supervisor or contract representative who validate the request and business need. Access is then enabled, by a database administrator, to specific files or application roles using need to know and least privilege security principals.

8.2   Contractor Access

Will Department contractors have access to the system?

Yes

8.3   Privacy Training

Describe what privacy training is provided to users either generally or specifically relevant to the program or system?

Internal users are required to complete the FS-USDA Information Security Awareness Training & Acknowledgement of Rules of Behavior (ROB) course annually, which includes specific policies and procedures for recognizing and safeguarding PII.

Contractors are required to acknowledge their responsibility for safeguarding PII that may be accessible as part of executing the contract. This includes contract stipulations for safeguarding any PII.

8.4   System Authority to Operate

Has Assessment & Authorization been completed for the system(s) supporting the program? If so, answer "Yes" and provide ATO expiration date(s).

No, the system is undergoing its' initial assessment and authorization at this time.

8.5   Audit and Technical Safeguards

What auditing measures and technical safeguards are in place to prevent misuse of data?

Auditing measures and technical safeguards are in place commensurate with the National Institute of Standards and Technology (NIST) Recommended Security Controls for Federal Information Systems and Organizations Moderate-Impact Baseline Special Publication (SP) 800-53, Rev. 4. This includes at a minimum:

- User identification and authentication
- The use of network and application access controls
- Encryption of data at rest, in transit, and in use
- Auditing of significant changes to systems or data.

Due to the public nature of this document, the method of encryption can be found in the System Security Plan, control SC-13. All encryption is FIPS 140-02 compliant.

8.6   Risk Mitigation

Given the sensitivity and scope of the information collected, as well as any information sharing conducted on the system, what privacy risks were identified and how do the security controls mitigate them?

The FIA system is subjected to confidentiality and integrity risks as part of the information collection.

Confidentiality risks are addressed with authentication and authorization technologies that restrict data access to need to know and least privilege. The data is also encrypted at rest and in-transit. In addition, administrative controls ensure users are trained to handle privacy information.

Integrity risks are addressed with encryption and back-up/recovery technologies that prevent the loss of information changes and ensure the authenticity of data following transmission. In addition, the organization has extensive procedures for collecting and validating data prior to its' use and maintaining its' accuracy over time through recurring surveys.

Section 9.0 Technology

The following questions are directed at critically analyzing the selection process for any technologies utilized by the system, including system hardware and other technology.

9.1 Description

What type of project is the program or system?

Major Application

9.2 Privacy Concerns

Does the project employ technology which may raise privacy concerns? If so, please discuss their implementation.

Yes, the system processes PII. The system components are physically located in a secure USDA data processing center. The data is backed-up regularly by both the host and the database management system to ensure its' availability and integrity. Data is encrypted at rest and transmitted in a FIPS-approved encrypted format to protect its' confidentiality and authenticity. Application code is developed using approved and privacy trained individuals. The code is reviewed then security flaws and vulnerabilities are corrected before it is implemented in a production environment. Applications implement role-based security controls to restrict users' access to their minimum privileges and need to know information.

Section 10.0 Third Party Websites/Applications

The following questions are directed at critically analyzing the privacy impact of using third party websites and/or applications.

10.1 Review

Has the System Owner (SO) and/or Information Systems Security Program Manager (ISSPM) reviewed Office of Management and Budget (OMB) memorandums M-10-22 "Guidance for Online Use of Web Measurement and Customization Technology" and M-10-23 "Guidance for Agency Use of Third-Party Websites and Applications"?

Yes.

The NRE FS FIA applications are hosted by a USDA accredited, internal cloud provider. While the provider's services may enable or make use of this technology, the NRE FS FIA applications within this system boundary do not use web measurement and customization technologies.

10.2 Purpose

What is the specific purpose of the agency's use of 3rd party websites and/or applications?

N/A

10.3 PII Availability

What Personally Identifiable Information (PII) will become available through the agency's use of 3rd party websites and/or applications.

N/A

10.4 PII Usage

How will the PII that becomes available through the agency's use of 3rd party websites and/or applications be used?

N/A

10.5 PII Maintenance and Security

How will the PII that becomes available through the agency's use of 3rd party websites and/or applications be maintained and secured?

N/A

10.6 PII Purging

Is the PII that becomes available through the agency's use of 3rd party websites and/or applications purged periodically? If so, is it done automatically? If so, is it done on a recurring basis?

N/A

10.7 PII Access

Who will have access to PII that becomes available through the agency's use of 3rd party websites and/or applications?

N/A

10.8 PII Sharing

With whom will the PII that becomes available through the agency's use of 3rd party websites and/or applications be shared—either internally or externally?

N/A

10.9 SORN Requirement

Will the activities involving the PII that becomes available through the agency's use of 3rd party websites and/or applications require either the creation or modification of a system of records notice (SORN)?

N/A

10.10   Web Measurement and Customization

Does the system use web measurement and customization technology? If so, is the system and procedures reviewed annually to demonstrate compliance to OMB M-10-23?

N/A

10.11   Web Measurement and Customization Opt-In/Opt-Out

Does the system allow users to either decline to opt-in or decide to opt-out of all uses of web measurement and customization technology? If so, does the agency provide the public with alternatives for acquiring comparable information and services?

N/A

10.12   Risk Mitigation

Given the amount and type of PII that becomes available through the agency's use of 3rd party websites and/or applications, discuss the privacy risks identified and how they were mitigated.

N/A

Responsible Official

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