



U.S. Department of the Interior PRIVACY IMPACT ASSESSMENT

Introduction

The Department of the Interior requires PIAs to be conducted and maintained on all IT systems whether already in existence, in development or undergoing modification in order to adequately evaluate privacy risks, ensure the protection of privacy information, and consider privacy implications throughout the information system development life cycle. This PIA form may not be modified and must be completed electronically; hand-written submissions will not be accepted. See the [DOI PIA Guide](#) for additional guidance on conducting a PIA or meeting the requirements of the E-Government Act of 2002. See Section 6.0 of the DOI PIA Guide for specific guidance on answering the questions in this form.

NOTE: See Section 7.0 of the DOI PIA Guide for guidance on using the DOI Adapted PIA template to assess third-party websites or applications.

Name of Project: U.S. Geological Survey – National Water Information System (NWIS)

Bureau/Office: USGS/National Water Information System Program

Date: January 18, 2017

Point of Contact:

Name: Jeffrey D. Christman

Title: NWIS Security Manager

Email: jdchrist@usgs.gov

Phone: 703-447-5680

Address: 6480 Doubletree Avenue, Columbus, OH 43229

Section 1. General System Information

A. Is a full PIA required?

- Yes, information is collected from or maintained on
- Members of the general public
 - Federal personnel and/or Federal contractors
 - Volunteers
 - All
- No: *Information is NOT collected, maintained, or used that is identifiable to the individual in this system. Only sections 1 and 5 of this form are required to be completed.*



B. What is the purpose of the system?

The primary use of the records contained in the U.S. Geological Survey (USGS) National Water Information System (NWIS) is both a work-flow application and a long-term database for National records of ground-water quality and levels; surface-water quality, stage and discharge; and water-use data; therefore, NWIS must be managed and maintained as a National archive of data. The NWIS also includes work-flow applications for the tracking of USGS tasks associated with elements of the water system. USGS personnel use NWIS for the collection, acquisition, processing, review, storage, and dissemination of water quantity and quality data. This system enables rapid retrieval of detailed water quantity and water quality information, making possible the implementation and successful completion of a broad range of interpretive studies addressing ground-water, surface-water, water-quality, and water-use issues. Such studies meet USGS statutory requirements and fulfill obligations to partners and stakeholders in local, state, tribal, and Federal government.

C. What is the legal authority?

43 U.S.C. 31 et seq. The Organic Act of March 3, 1879, as amended (1962); and restated in annual appropriation acts directs the Geological Survey to classify the public lands and examine the geological structure, mineral resources, and products within and outside the national domain.

D. Why is this PIA being completed or modified?

- New Information System
- New Electronic Collection
- Existing Information System under Periodic Review
- Merging of Systems
- Significantly Modified Information System
- Conversion from Paper to Electronic Records
- Retiring or Decommissioning a System
- Other: *Describe*

E. Is this information system registered in CSAM?

The completed PIA, associated system of records notice(s), and any other supporting artifacts must be entered into the CSAM system for each registered system or application.

Yes: *Enter the UII Code and the System Security Plan (SSP) Name*
010-000001049 - System Security Plan (SSP) for National Water Information System

No



F. List all minor applications or subsystems that are hosted on this system and covered under this privacy impact assessment.

Subsystem Name	Purpose	Contains PII (Yes/No)	Describe If Yes, provide a description.
None	None	No	N/A

G. Does this information system or electronic collection require a published Privacy Act System of Records Notice (SORN)?

Yes: *List Privacy Act SORN Identifier(s)*

USGS-01, National Water Information System (NWIS) (73 FR 54425)

No

H. Does this information system or electronic collection require an OMB Control Number?

Yes: *Describe*

No

Section 2. Summary of System Data

A. What PII will be collected? Indicate all that apply.

- Name
 - Citizenship
 - Gender
 - Birth Date
 - Group Affiliation
 - Marital Status
 - Biometrics
 - Other Names Used
 - Truncated SSN
 - Legal Status
 - Place of Birth
 - Religious Preference
 - Security Clearance
 - Spouse Information
 - Financial Information
 - Medical Information
 - Disability Information
 - Credit Card Number
 - Law Enforcement
 - Education Information
 - Driver's License
 - Social Security Number (SSN)
 - Personal Cell Telephone Number
 - Tribal or Other ID Number
 - Personal Email Address
 - Mother's Maiden Name
 - Home Telephone Number
 - Child or Dependent Information
 - Employment Information
 - Military Status/Service
 - Mailing/Home Address
 - Race/Ethnicity
- Other: *Specify the PII collected.* Beginning date of the site ownership and may include ending date of ownership.



B. What is the source for the PII collected? Indicate all that apply.

- Individual
- Federal agency
- Tribal agency
- Local agency
- DOI records
- Third party source
- State agency
- Other: *Describe*

C. How will the information be collected? Indicate all that apply.

- Paper Format
- Email
- Face-to-Face Contact
- Web site
- Fax
- Telephone Interview
- Information Shared Between Systems
- Other: *Describe*

D. What is the intended use of the PII collected?

The intended use of the PII is to promote the collection of site-owner and location of water data collection points to maintain the overall detailed water quantity and quality information in the system; enable USGS field personnel to use the information to obtain advanced approval to visit a site on private lands or request additional information about the site or activities; and maintain accurate and complete water data and related information that are necessary to develop required studies and reports.

E. With whom will the PII be shared, both within DOI and outside DOI? Indicate all that apply.

- Within the Bureau/Office: *Describe the bureau/office and how the data will be used.*

PII is retrieved from the database and used prior to field trips to contact land owners and tenants for permission to collect water information. PII may also be used to help locate the property for the field visit.

- Other Bureaus/Offices: *Describe the bureau/office and how the data will be used.*



Other Federal Agencies: *Describe the federal agency and how the data will be used.*

Information may be shared with other Federal agencies as authorized pursuant to the routine uses contained in the USGS-01, National Water Information System (NWIS) system of records notice.

Tribal, State or Local Agencies: *Describe the Tribal, state or local agencies and how the data will be used.*

Information may be shared with Tribal, state or local agencies as authorized pursuant to the routine uses contained in the USGS-01, National Water Information System (NWIS) system of records notice.

Contractor: *Describe the contractor and how the data will be used.*

Information may be shared contractors who perform services or otherwise support USGS activities related to the NWIS program, and as authorized pursuant to the routine uses contained in the USGS-01, National Water Information System (NWIS) system of records notice.

Other Third Party Sources: *Describe the third party source and how the data will be used.*

Information may be shared contractors who perform services or otherwise support USGS activities related to the NWIS program, and as authorized pursuant to the routine uses contained in the USGS-01, National Water Information System (NWIS) system of records notice.

F. Do individuals have the opportunity to decline to provide information or to consent to the specific uses of their PII?

Yes: *Describe the method by which individuals can decline to provide information or how individuals consent to specific uses.*

1) When site information is entered, the site-owner information is not a mandatory input field. 2) The USGS is required to follow Survey Manual (SM) Chapter 500.11, "Obtaining permission to access private lands". The site-owner, address, and telephone number are not entered into the database unless the SM 500.11 related form is signed by the land owner or designate.

No: *State the reason why individuals cannot object or why individuals cannot give or withhold their consent.*



**G. What information is provided to an individual when asked to provide PII data?
Indicate all that apply.**

Privacy Act Statement: *Describe each applicable format.*

The Privacy Act Statement is printed on the required permission forms (SM 500.11).

PRIVACY ACT STATEMENT

Authority: 43 U.S.C. 31 et seq. The Organic Act of March 3, 1879.

Purpose: To obtain contact information and permission for site visits for research and data collection for the maintenance of a long-term database for National records of ground-water quality and levels; surface-water quality, stage and discharge; and water-use data.

Routine Uses: Promote the collection of site-owner and location of water data collection points to maintain the overall detailed water quantity and quality information, 2) to enable USGS field personnel to obtain advanced approval to visit a site on private lands or request additional information about the site or activities; and 3) to maintain accurate and complete water data and related information that are necessary to develop required studies and reports. This information may be shared with other USGS scientists and authorized cooperators for analysis and study.

Disclosure: Providing this information is voluntary. The site owner is under no obligation to provide contact information or access to the site. If the site owner declines to provide the information or permission, their site will not be included in the study.

Privacy Notice: *Describe each applicable format.*

Notice is also provided through the publication of this PIA and the USGS-01, National Water Information System (NWIS) system of records notice.

Other: *Describe each applicable format.*

None

H. How will the data be retrieved? List the identifiers that will be used to retrieve information (e.g., name, case number, etc.).

Records are retrieved by site-location number only. There is no direct retrieval method by site-owner name through the NWIS interface.



I. Will reports be produced on individuals?

Yes: *What will be the use of these reports? Who will have access to them?*

No

Section 3. Attributes of System Data

A. How will data collected from sources other than DOI records be verified for accuracy?

Owner name, contact name, and address information obtained from other agencies, businesses, or water-related interest groups may be verified by contacting the individual, or queries may be passed back to the individual by the source agency.

B. How will data be checked for completeness?

Although every effort is made to obtain complete information, these personal identifier fields are not mandatory and therefore are not checked for completeness.

C. What procedures are taken to ensure the data is current? Identify the process or name the document (e.g., data models).

Records of an individual's ownership of a site include the beginning date of the ownership and may include an ending date. Data are also tagged with the date of entry into the USGS database. Information such as address and contact phone number are represented only as being current as of the time the information was obtained by USGS.

D. What are the retention periods for data in the system? Identify the associated records retention schedule for the records in this system.

The data stored in the NWIS databases are permanent records; therefore, the retention period is indefinite. The USGS Water Resource Schedule is 1400-01b, which was approved by NARA (N1-057-08-04). When the data is no longer required for research or if the NWIS database is discontinued, records will be transferred to NARA for permanent retention in accordance with the records schedule.

E. What are the procedures for disposition of the data at the end of the retention period? Where are the procedures documented?

The data stored in the NWIS databases are permanent records; therefore, the retention period is indefinite. When the data is no longer required for research or if the NWIS



database is discontinued, records will be transferred to NARA for permanent retention pursuant to USGS Water Resource Schedule 1400-01b.

F. Briefly describe privacy risks and how information handling practices at each stage of the “information lifecycle” (i.e., collection, use, retention, processing, disclosure and destruction) affect individual privacy.

There is a limited risk to privacy as the NWIS maintains names and contact information for site-owners voluntarily provided to facilitate access to sites to collect water quantity and quality data. NWIS has an Authority to Operate and is maintained as a Moderate Risk system under the USGS Continuous Monitoring Program Plan (CMPP). The privacy of individuals is protected by NWIS security measures established to control different degrees of access for different types of users. NWIS controls access using three layers of security: system user authentication via username and password, database access (table and row level) via grants, and roles and groups on the NWIS application. Group access and NWIS file permissions are documented in the NWIS Security System documentation. Authorized personnel undergo required yearly IT security, privacy, and records management awareness training and security role-based training. Audit log reviews, user accounts reviews and yearly self-assessments are conducted as required by the USGS CMPP.

Section 4. PIA Risk Review

A. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?

Yes: *Explanation*

The collection of the site owner PII is both relevant and necessary to the mission of NWIS because it enables USGS field personnel to use the information to obtain advanced approval to visit a site on private lands to collect hydrologic information or request additional information about the site or activities related to the hydrology of the site.

No

B. Does this system or electronic collection derive new data or create previously unavailable data about an individual through data aggregation?

Yes: *Explain what risks are introduced by this data aggregation and how these risks will be mitigated.*

No



C. Will the new data be placed in the individual's record?

Yes: *Explanation*

No

D. Can the system make determinations about individuals that would not be possible without the new data?

Yes: *Explanation*

No

E. How will the new data be verified for relevance and accuracy?

NWIS does not derive new data.

F. Are the data or the processes being consolidated?

Yes, data is being consolidated. *Describe the controls that are in place to protect the data from unauthorized access or use.*

Yes, processes are being consolidated. *Describe the controls that are in place to protect the data from unauthorized access or use.*

No, data or processes are not being consolidated.

G. Who will have access to data in the system or electronic collection? Indicate all that apply.

Users

Contractors

Developers

System Administrator

Other: *Describe* Strategic cooperators are authorized personnel whose official duties require site visit access.

H. How is user access to data determined? Will users have access to all data or will access be restricted?

NWIS has security measures established to control different degrees of access for different types of users. NWIS controls access using three layers of security: system user authentication via username and password, database access (table and row level) via



grants, and roles and groups on the NWIS application. Group access and NWIS file permissions are documented in the NWIS Security System.

I. Are contractors involved with the design and/or development of the system, or will they be involved with the maintenance of the system?

Yes. *Were Privacy Act contract clauses included in their contracts and other regulatory measures addressed?*

Yes, the IT Statement of Work includes Privacy Act clauses.

No

J. Is the system using technologies in ways that the DOI has not previously employed (e.g., monitoring software, SmartCards or Caller ID)?

Yes. *Explanation*

No

K. Will this system provide the capability to identify, locate and monitor individuals?

Yes. *Explanation*

The NWIS systems are covered by event logging that include account login events, process tracking, record access, and other audit data.

No

L. What kinds of information are collected as a function of the monitoring of individuals?

Information collected in the system logging includes the identity of each entity accessing the system, time and date of access; activities that could modify, bypass, or negate the systems security controls, and Level (alert, warning, critical).

M. What controls will be used to prevent unauthorized monitoring?

Only authorized staff members with an approved defined position and a need to access information to complete necessary job functions are granted access to the NWIS site-owner contact list. Before receiving access to the network or information residing within, users are educated on safeguards and rules of behavior to be employed while utilizing the network. All such personnel receive initial and annual information technology security



and privacy awareness training, and sign rules of behavior concerning the use of IT systems. In addition, user activities are monitored as an ongoing management and supervisory function.

N. How will the PII be secured?

(1) Physical Controls. Indicate all that apply.

- Security Guards
- Key Guards
- Locked File Cabinets
- Secured Facility
- Closed Circuit Television
- Cipher Locks
- Identification Badges
- Safes
- Combination Locks
- Locked Offices
- Other. *Describe*

(2) Technical Controls. Indicate all that apply.

- Password
- Firewall
- Encryption
- User Identification
- Biometrics
- Intrusion Detection System (IDS)
- Virtual Private Network (VPN)
- Public Key Infrastructure (PKI) Certificates
- Personal Identity Verification (PIV) Card
- Other. *Describe*

(3) Administrative Controls. Indicate all that apply.

- Periodic Security Audits
- Backups Secured Off-site
- Rules of Behavior
- Role-Based Training
- Regular Monitoring of Users' Security Practices
- Methods to Ensure Only Authorized Personnel Have Access to PII
- Encryption of Backups Containing Sensitive Data
- Mandatory Security, Privacy and Records Management Training



Other. *Describe*

O. Who will be responsible for protecting the privacy rights of the public and employees? This includes officials responsible for addressing Privacy Act complaints and requests for redress or amendment of records.

The USGS, Chief of Office of Water Information serves as the NWIS Information System Owner and the official responsible for oversight and management of the NWIS security and privacy controls and the protection of agency information processed and stored by the NWIS program. The Information System Owner and the NWIS Privacy Act System Manager are responsible for ensuring adequate safeguards are implemented to protect individual privacy in compliance with Federal laws and policies for the data managed and stored in NWIS. Agency data in the NWIS program is under the control of the agency, and the NWIS System Manager is responsible for protecting the privacy rights of the public and employees for the information collected, maintained, and used in the system, and for meeting the requirements of the Privacy Act, including providing adequate notice, making decisions on Privacy Act requests for notification, access, and amendments, as well as processing complaints, in consultation with the USGS Privacy Officer.

P. Who is responsible for assuring proper use of the data and for reporting the loss, compromise, unauthorized disclosure, or unauthorized access of privacy protected information?

The NWIS program Information System Owner is responsible for oversight and management of the NWIS program security and privacy controls, and for ensuring to the greatest possible extent that NWIS program data is properly managed and that all access to data has been granted in a secure and auditable manner. The Information System Owner is also responsible for ensuring that any loss, compromise, unauthorized access or disclosure of PII is reported to DOI-CIRC and the appropriate DOI privacy officials within 1-hour of discovery in accordance with Federal policy and established procedures.