



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	Date			
iPlover	05-05-2016			
Bureau/Office	Bureau/Office Contact Title			
US Geological Survey, Woods Hole Coastal and Marine Sci	Research Geologist			
Point of Contact Email	First Name	M.I.	Last Name	Phone
Address Line 1				
8505 Research Way				
Address Line 2				
City	State/Territory	Zip		
Middleton	Wisconsin	53562		

Section 1. General System Information

A. Is a full PIA required?

No

Information is NOT collected, maintained, or used that is identifiable to the individual in this system. Only sections 1 and 2 of this form are required to be completed.

B. What is the purpose of the system?

Understanding and managing dynamic coastal landscapes for beach-dependent species requires biological and geological data across the range of relevant environments and habitats. It is difficult to acquire such data; many data collections focus on either the biology or the geology, are collected by non-specialists, and lack observational uniformity. Here we describe a web application (web app) that addresses these difficulties. We used HTML5, JavaScript, and other tools to create a cloud-based web app called iPlover that simplifies and facilitates consistent data collection, management, and enables direct data input into research models. An agile software development approach was used to rapidly develop the web app and adapt to changing functional and operational requirements.

The development and implementation of iPlover is conducted by the USGS Woods Hole Coastal and Marine Science Center, and the USGS Center for Integrated Analytics. Rob Thieler is the lead PI. The project also forms a significant basis for the Mendenhall post-doctoral fellowship of Sara Zeigler, who is supervised by Thieler, and co-advised by Thieler, Nathaniel Plant, and Sarah Karpanty (Virginia Tech). The project builds on several years of close collaboration with FWS and NPS to understand and predict coastal landform change and potential impacts on beach-dependent species.

Principal funding for iPlover comes from the DOI North Atlantic LCC as part of the Hurricane Sandy DRA, supplemented with Coastal and Marine Geology Program SIR funds. As part of the Sandy response, the timeline for development has been rather compressed. There is also little formal USGS guidance on mobile applications, particularly those used for non-interpretive purposes such as data collection.

The original implementation was as a cloud-hosted web application in the DOI cloud prototype. Throughout the development process, we have adhered to information collection requirements (e.g., PII) and security (e.g., user authentication, hosting, data management) in consultation with the USGS Information Collection Officer (James Sayer), USGS Office of Communications for Web and Social Media (Scott Horvath), and others.

In 2014, we conducted a field-scale trial using federal employee data collectors at selected National Park Units and National Wildlife Refuges. Sites were selected in coordination with the FWS Endangered Species program and the North Atlantic LCC. We also included one non-federal data collector with an NGO (The Nature Conservancy). The use of non-federal collectors is limited to <10 per OMB Paperwork Reduction Act guidance.

The field-scale trial was very successful and collected ~600 observations, which represents a significant percentage of the Atlantic coast breeding population (currently just under 2000 pairs). It also illuminated a few technical issues (principally OS-imposed limits on browser-based storage) that we are resolving by moving to a native app. We are following guidelines for code review by USGS (Tim Kern et al.) and Center Director approval (Walter Barnhardt). The app is expected to be submitted for review by Apple in early March. We expect a 7-10 day turnaround for it to be available in the Apple App Store. User training will be conducted between 18 March and 01 April. Field data acquisition will begin shortly after 01 April as the breeding season commences.

We expect to receive OMB approval at the conclusion of the current 30-day FR comment period on 20 February 2015. When approved, OMB will provide a control number that will be visible in the app. We are using the temporary, pending number at the moment. OMB approval also allows us to have members of the "public" use the app. In our context, this means >10 non-federal employees (e.g., state, county employees; NGOs). However, this is NOT a citizen science app. iPlover users are trained and vetted observers from a select group that coordinates with the FWS Endangered Species program. Piping plovers are a federally-listed species and there are regulations in place regarding approach and disturbance.

C. What is the legal authority?

The Department of the Interior's mission is tasked with the protection and management of the Nation's natural resources, cultural heritage and to provide scientific information about resources to aid in their management.

The purpose of the information collection is to collect geographic location information, date and time of observation, site information and images, and a simple landscape classification including geomorphology and vegetation characteristics. The data collected will be used as input into research models of habitat utilization by beach-dependent species. Model outputs will be used to understand habitat utilization and availability in the future as the coast changes in response to storms, sea-level rise, climate change, and other factors. This information is used to inform land

| and species management decisions tasked to several Department of Interior agencies, as well as
| state and local governments.

| Relevant acts include: Fish and Wildlife Coordination Act, 1934; Migratory Bird Treaty Act,
| 1918; Endangered Species Act, 1973; National Wildlife Refuge System Improvement Act of
| 1997; National Environmental Policy Act of 1969; National Park Service Organic Act of 1916;
| Executive Order 13653 – Preparing the United States for the Impacts of Climate Change.

D. Why is this PIA being completed or modified?

| Existing Information System under Periodic Review

E. Is this information system registered in CSAM?

| 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	Describe
N/A	N/A	No	

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

| No

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

| Yes

Describe

| OMB Control Number - 1028-0113