National Wildlife Refuge System Guidance on Geocaching

The rapid growth in popularity of Global Positioning Systems (GPS) technology for outdoor recreation activities has resulted in concerns about its application on national wildlife refuges. Certain types of GPS recreation activities offer opportunities to reach new segments of the American public not currently aware of the Refuge System's conservation mission, but also require constant monitoring to make sure that caches are not placed illegally on refuges. Many new GPS recreation programs offer underutilized methods for supporting our wildlife dependent recreation programs, learning about visitor interests, and developing partnerships.

The following general guidelines offer information on the use of GPS-related recreation activities, key regulations and policies that should be considered before approving programs on refuges, and sources of information for researching the topic.

What is geocaching?

The field of Geocaching has grown to include many activities. Traditional geocaching consists of games of hiding and seeking "treasure." A geocacher will place a physical geocache (objects, coins, logbook, etc.) at a certain location, pinpoint its location using GPS technology, and then share the geocache's location via a web page such as at Geocaching.com.

Based upon this information, others are challenged to use GPS units to locate the geocache, record information to share with other goecachers, or leave new items for discovery. Sometimes the cache is buried, which could damage sensitive resources and violate applicable regulations and policies.

Is geocaching an appropriate use on a national wildlife refuge?

Traditional geocaching (the burying, placement or removal of a physical cache) is generally not an appropriate use for national wildlife refuges pursuant to the regulations and policies cited below, unless authorized by the refuge manager.

Other forms of geocaching have emerged that do not require burying, placing or removing objects. While not an exhaustive list, here are some of the most current popular types of GPS recreation programs that may be appropriate and compatible on refuges. Some may offer benefits to support our educational and interpretive programs or learn more about our visitors.

> **Virtual Geocaching (www.waymarking.com)** also utilizes hand held GPS devices, but the goal of the activity is different, and the activity can be enjoyed without placing a physical cache. Virtual caching provides GPS coordinates to existing points of interest, such as a facility, cultural feature, wayside exhibit, or object in public areas.

> **Letterboxing (www.letterboxing.org)** involves the placement of a cache containing a stamp and an inkpad that participants use to document that they have discovered a specific location. Participants find the location by following "clues" offered on the web involving map coordinates or compass bearings. Letterboxing does not require leaving or removing caches as part of the challenge.

> **Earthcaching** is a type of virtual geocache (www.earthcache.org). The web site lists a number of virtual caches which are educational in purpose and judged for suitability by a team supported by the Geological Society of America.

Trail Link is a partnership between Geocaching.com and the Rails to Trails Conservancy to collect mapping data for over 15,000 miles of trails nationwide. Members of the Rails to Trails Conservancy are encouraged to capture GPS coordinates as they hike. The GPS coordinates can be supplemented with photos and other interpretive information about particular points along the trails. For more information about the program and its possible application to Refuge System trails, visit www.geocaching.com/railstotrails/default.aspx.

GPS Adventures (http://www.gpsmaze.com/index.html) is a program that incorporates lesson plans from a number of educational programs about geography, history, science and technology. The program includes a GPS Adventures Maze to provide students with hands-on exploration of the use of GPS technology in support of school programs.

What regulations and policies affect the use of GPS recreational activities on refuges?

Ideally, proposals to allow geocaching programs should be considered as part of the comprehensive conservation planning process. Refuge managers must also make determinations on appropriateness and compatibility before allowing such uses. In some instances, a manager may determine a proposed activity to be appropriate and compatible, but only under the terms and conditions of a special use permit. You should consult the following regulations and policies to determine if a proposed GPS supported recreational activity is appropriate and compatible for use on a refuge.

50 CFR Parts 25, 27 and 28 contain provisions for opening and closing of refuges for access and public use, the abandonment of property and the removal of valued objects, and removal and penalty procedures.

43 CFR 7 prohibits the disturbance and collection of archaeological resources on refuges without an archaeological permit.

602 FW 1, 3 and 4, Refuge Planning offers guidance on addressing visitor services issues in comprehensive conservation plans and step-down plans.

603 FW 1, Appropriate Refuges Uses offers guidance on reaching decisions on proposed activities that support refuge management and wildlife-dependent recreation programs.

603 FW 2, Compatibility provides guidance for determining the compatibility of proposed and existing uses of refuges. The chapter also includes an exhibit outlining the content of a compatibility determination.

605 FW 1-7, Wildlife Dependent Recreation provides guidance on developing and managing hunting, fishing, interpretation, environmental education, wildlife photography and observation programs.

610 FW 2, (2.30 - 2.31) Wilderness Administration and Resource Stewardship provides guidance on appropriate and compatible public uses in   refuge wilderness.

Are there restrictions on the use of GPS units for recreational purposes in Wilderness Areas?

The Service's wilderness management policy (610 FW 2) does not prohibit the use of GPS units within refuge wilderness areas.   However, managers need to make sure that wilderness character is considered when evaluating the appropriateness of GPS recreational activities.   Service policy (610 FW 2, 2.31) does state that competitive public events or contests are prohibited in wilderness, such as a large organized GPS geocaching event.

Monitoring GPS Activities Affecting Refuges

The application of GPS technology to enhance recreation programs changes frequently, but since the majority of activities involve registering and reporting information via the web, we recommend that you monitor activities affecting refuges on popular web pages such as www.geocaching.com (the main web site source for GPS activities), www.waymarking.com, and www.letterboxing.org.

The Geocaching.com web page contains cache listing requirements which alert users that placing or removing a physical cache on a national wildlife refuge is prohibited. The Geocaching.com web page posts the following "Off Limit Physical Caches" guidance for users at http://www.geocaching.com/about/guidelines.aspx#offlimit:

- Caches on land managed by an agency that prohibits geocaches, such as the U.S. National Park Service or U.S. Fish and Wildlife Service (National Wildlife Refuges)

- Caches that are buried. If a shovel, trowel or other "pointy" object is used to dig, whether in order to hide or to find the cache, then it is not appropriate.

- Caches that deface public or private property, whether a natural or man-made object, in order to provide a hiding place, a clue or a logging method.

- Caches placed in areas which are highly sensitive to the extra traffic that would be caused by vehicles and humans (examples may include archaeological or historic sites).

If alerted that an unapproved physical cache has been left on or proposed for a national wildlife refuge, Geocaching.com may archive or disable the proposed activity from its web page and alert users.

Other Informative Web Sites

- **National Park Service's GPS-based policy on recreational activities** www.nps.gov/policy
- **Leave No Trace (http://www.lnt.org/)**
- **Geocaching with Kids (http://eduscapes.com/geocaching/kids.htm)**
- **National Conservation Training Center Courses --** *GIS Technologies for Managers* **(http://training.fws.gov/CLM/Courses/coursTEC2.htm)**
- **The Degree of Confluence Program (http://www.confluence.org/)**
- **Earthcaching Educator's Guide (http://www.geosociety.org/Earthcache/teacherGuide.htm)**

What are a few examples of successful GPS recreation activities on refuges?

Upper Mississippi River National Wildlife and Fish Refuge offers a family friendly outdoor GPS activity aimed at techno kids and their parents. The Refuge has created the "Mystery Geocaching" program that offers clues and questions for discovering a landmark, feature, or sign. Visitors are encouraged to complete and turn in a clue sheet at the refuge headquarters for a prize. For more information, go to: http://www.fws.gov/midwest/UpperMississippiRiver/vg.html

Ridgefield National Wildlife Refuge has created a GPS activity called "GeoAdventure: All of the Learning, None of the Digging." Visitors are loaned small logs with a journal, objects, clues and a GPS device. As visitors arrive at "waypoints" along refuge trails, they are encouraged to record their observations about how objects in the backpacks relate to each location. The Refuge has developed guidance on its GeoAdventures activity for other refuges to consider, including suggestions about how to research and offer similar programs.

Arthur R. Marshall Loxahatchee National Wildlife Refuge offers a GPS supported program for visitors to take a self-guided adventure in locating one or many virtual caches located on the Refuge. The visitor receives a page with clues on it from the Visitor Center and each clue includes coordinates leading to a place on the Refuge. At the coordinates, the visitor finds answers to the questions listed on the clue sheet. Visitors who successfully locate and answer all ten landmark questions will have their book stamped with a Refuge stamp and their picture posted on the Refuge web site.