

## **Product Description Document (PDD)**

### **Experimental Use of Really Simple Syndication (RSS) for Distribution of Advanced Hydrologic Prediction Service (AHPS) Information**

#### **Part 1 – Mission Connection**

##### **1. Product Description:**

The National Weather Service is responsible for making its weather, water and climate information widely available to taxpayers using commonly accepted standards and techniques. One of the most widely accepted, available, and cost effective means of accomplishing this objective is the use of web services via the internet. The NWS has implemented Advanced Hydrologic Prediction Service (AHPS) as a corporate-wide HTTP-based web service for disseminating hydrologic information. This service has allowed users instant access to current NWS hydrologic information via Internet connections to personal computers equipped with industry standard browsers.

A rapidly evolving technology across the United States is the ability to access internet content via portable wireless devices. The Really Simple Syndication (RSS) format of AHPS information, will allow for a means of a user-driven public notification of AHPS products to cellular telephones or personal digital assistant (PDA). The RSS format will be provided for: 1) AHPS observations, 2) AHPS routine forecasts and 3) AHPS observations and forecasts that reach “alert” thresholds. The “alert” threshold is determined by the Weather Forecast Offices and is based on locally appropriate action stage that is always a stage below flood stage. This “alert” capability can be used to trigger further review of hydrological and meteorological conditions.

The AHPS RSS products will include the most recent observations, and when appropriate the greatest forecast value and the last forecast value from an individual AHPS time series file (in xml format). The AHPS RSS product will also include the internet address to the AHPS hydrograph page. A null AHPS RSS “alert” product will be available to indicate non-alert conditions – if/when non-alert conditions exist.


##### **2. Purpose/Intended Use:**

The purpose of this experimental product is to provide a small subset of the available AHPS information in a format which allows customers the flexibility of being away from a desktop computer. This capability allows users to have knowledge of changing river conditions and use this knowledge to make better decisions or if there is a need to obtain more detailed AHPS information.

##### **3. Audience:**

The audience for this service includes emergency managers, water resource officials, river interests, commercial industry, transportation, recreation, commerce, and all general weather and water information users.

##### **4. Presentation:**

NWS is currently providing RSS products (<http://www.nws.noaa.gov/rss/>) for a variety of program areas. Links to the AHPS RSS feeds will also be provide at this location as well as on the existing AHPS maps and hydrograph web pages for all locations in Eastern Region. RSS reader software, required to utilize any RSS feed, is widely available on the Internet. The links will be denoted with a small logo .

#### **5. Feedback Method:**

NWS is always seeking to improve the availability and quality of NWS products and services based on user feedback. Comments regarding the RSS AHPS service should be e-mailed to the National Weather Service Eastern Region webmaster at: [ahps.webmaster@noaa.gov](mailto:ahps.webmaster@noaa.gov). The feedback period for this experimental service will extend from December 11, 2006 to July 31, 2007.

Technical questions may be addressed via e-mail to: [ahps.webmaster@noaa.gov](mailto:ahps.webmaster@noaa.gov)  
Or regular mail to:

National Weather Service Eastern Region Headquarters  
Attn: Hydrologic Services Division  
630 Johnson Ave, Suite 202  
Bohemia, NY 11716

Telephone: (631)-244-0114

### **Part 2 - Technical**

#### **1. Format and Sciences Basis:**

The NWS is currently providing RSS products (<http://www.nws.noaa.gov/rss/>) for a variety of program areas. The prototype RSS product feed for AHPS will be developed from existing AHPS xml files. The design will include RSS products for individual gage locations, as well as entire states. Gages that are along state boundaries for the purposes of this product shall be considered to be within multiple states. The RSS specifications to be utilized will be consistent with other NWS RSS product feeds.

The software used to develop the AHPS RSS products will use the existing AHPS CMS database and be optimized for operations with the existing AHPS web farm software suite. The software will be configured to create the prototype RSS products at the frequency of the xml product availability in the ER web farm.

The software to read/access the AHPS RSS product is any RSS software available (whether commercially available or free) that reads RSS Version 2.0.

#### **2. Availability:**

This service is intended to be available 24 hours a day, and 7 days a week during the experimental period.

#### **3. Additional Information:**

The product information will be derived solely from information stored and updated on the AHPS web system.

The prototype RSS testing will be available to all users accessing AHPS information over the NWS web farm from the URL <http://www.weather.gov/ahps/rss/>.