

# Facility Registry System (FRS)

Advanced Step By Step Guide:
How to Research and Improve Facilities Using Public Land Survey
Descriptions

JUNE, 2013

**Prepared for:** Environmental Protection Agency

**Prepared by:** Dave Smith

USEPA/OEI/OIC/IESD/IS smith.davidg@epa.gov

202-566-0797



## **TABLE OF CONTENTS**

PREPAR	ED FOR:	
TABLE	OF CONTENTS	
REVISI	ION HISTORY	. 11
<b>A.</b>	BACKGROUND: ABOUT THE PLLS SYSTEM	
A 1	Sample Facility	_

Using PLS Descriptions Version 1.0 Date: 06/27/2013

# **REVISION HISTORY**

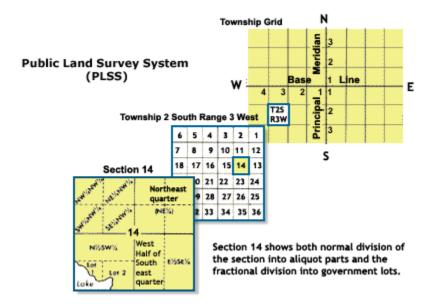
Version Number	Date	Description of Changes
1.0	06/27/2013	Initial creation.

Date: 06/27/2013

### A. BACKGROUND: ABOUT THE PLLS SYSTEM

The Public Land Survey System (PLSS) is a way of subdividing and describing land in the United States. All lands in the public domain are subject to subdivision by this rectangular system of surveys, which is regulated by the U.S. Department of the Interior, Bureau of Land Management (BLM). It is in common use for describing lands and location of features in rural areas in many parts of the country.

The PLSS system works via a grid system, as follows:



More information about the Public Land Survey System is available here: http://www.nationalatlas.gov/articles/boundaries/a\_plss.html

#### A.1 SAMPLE FACILITY

Facility Linkage Application record:

110039958203	AUBURNDALE WWTP	NWQ SEQ SEC 23 T25N R4E	AUBURNDALE TN	WOOD	WI	AUBURNDALE, WI US	iCmZ
110039958203	VVVVIP	125N R4E	IN	WOOD	VVI	WI US	1CmZ

A more verbose description of this is "North-West Quarter of the South East Quarter of Section 23, Township 25 North, Range 4 East" – Township numbering runs north and south from the baseline, and Range numbering runs

east and west from the meridian. Section numbering is shown in the diagram above. This is a standardized and consistent scheme used throughout.

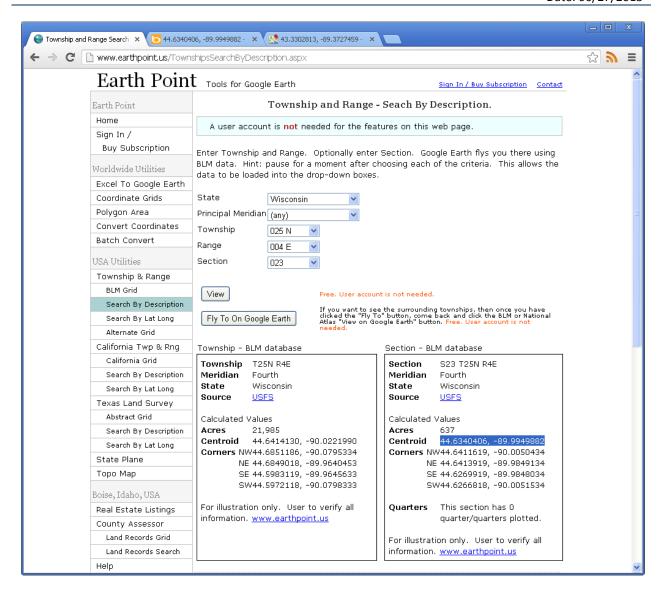
In the diagram below, Township 25N, Range 4E, Section 23 is shown highlighted in the center, with further quarter and 16<sup>th</sup> subdivisions shown. In this case, they are further subdividing the facility location to the northwest quarter of the southeast quarter (highlighted in darker green)

of the southeast quarter (highlighted in darker green)								
T25N R4E Sec 15	T25N R4E Sec 14			T25N R4E Sec 13				
T25N R4E Sec 22	SW	NE NW SE SW SE	NE SE SE SE	T25N R4E Sec 24				
T25N R4E Sec 27	T25N R4E \$	Sec 26		T25N R4E Sec 25				

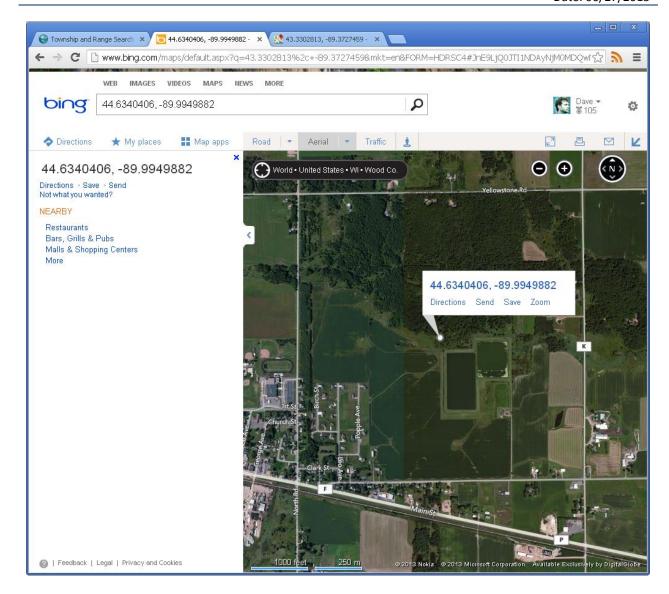
This description can be researched at websites like Earth Point:

http://www.earthpoint.us/TownshipsSearchByDescription.aspx

This site can provide coordinates for the centroid of the Section, along with its bounding coordinates"



Those coordinates can then be entered into other mapping tools to see the area of interest, in this case, the centroid coordinates were entered into Bing Maps, and the user can visually confirm proximity to Auburndale, WI and confirm county as Wood County, WI – and as in many cases, the road grid also follows the PLSS sections and outlines Section 23:



In this case, the sewage lagoon is readily visible in the Bing Maps aerial photo, located exactly as described in the northwest quadrant of the southeast quarter-section.

This technique can be used for large surface features such as quarries or other types of facilities that would be readily identifiable via aerial photograph.