

SENATE BILL REPORT

HB 2860

As Reported by Senate Committee On:
Agriculture, Water, Natural Resources & Parks, February 28, 2020

Title: An act relating to the Washington plane coordinate system.

Brief Description: Concerning the Washington plane coordinate system.

Sponsors: Representatives Orcutt and Fey.

Brief History:

Committee Activity: Agriculture, Water, Natural Resources & Parks: 2/28/20, 2/28/20 [DP].

Brief Summary of Bill

- Updates provisions and definitions related to the Washington Coordinate System.
- Renames the Washington Coordinate System to be known as the Washington Plane Coordinate System (WPCS).
- Requires the WPCS consist of the most recent system of plane coordinates established by the National Geodetic Survey.

SENATE COMMITTEE ON AGRICULTURE, WATER, NATURAL RESOURCES & PARKS

Staff: Karen Epps (786-7424)

Background: The Department of Natural Resources is required to provide a reference system to identify and preserve survey points. These survey points are widely used in land surveying, Geographic Information Systems (GIS) applications, and map production. This reference system is known as the Washington Coordinate System.

In 1945, Washington adopted, as part of the Washington Coordinate System, a federal reference system supported and maintained by the National Geodetic Survey (NGS). This system was known as the North American Datum of 1927 (NAD27). A new reference system based on the North American Datum of 1983, known as NAD83, was developed to reflect improved technology and accuracy. Since 1990, anyone using the Washington Coordinate System has been required to use NAD83.

This analysis was prepared by non-partisan legislative staff for the use of legislative members in their deliberations. This analysis is not part of the legislation nor does it constitute a statement of legislative intent.

Using NAD83, the Washington Coordinate System provides a common language for identifying location coordinates that are expressed in terms of an "x" value—an east-west direction, and a "y" value—a north-south direction. The Washington Coordinate System requires that reference points be expressed in meters. These values expressed in meters, or converted to feet, can then be entered into a database and shared with anyone who chooses to use the Washington Coordinate System.

NGS will replace NAD83 with a new geometric reference frame and geopotential datum in 2022.

Summary of Bill: The most recent version of the state plane coordinate system for Washington must be known as the WPCS. The WPCS must consist of the most recent system of plane coordinates established by the NGS for defining and stating the positions or locations of points on the surface of the earth within Washington. The following definitions are added to the law governing the WPCS:

1. "NSRS" means the National Spatial Reference System or its successor.
2. "NGS" means the National Ocean Service's national geodetic survey of the National Oceanic and Atmospheric Administration, United States Department of Commerce, or its successor.
3. "Metadata" means, for purposes of the WPCS, the geodetic reference system utilized, the applicable epoch, the date of observation, and other metadata as appropriate.

The plane coordinates of a point on the earth's surface, to be used in expressing the position or location of the point in the appropriate zone of the WPCS, consist of two distances, expressed in feet and decimals of a foot or meters and decimals of a meter, along with the metadata of the observations used to determine the coordinates. One of these distances, to be known as the "east x-coordinate," must give the distance east of the Y axis; the other, to be known as the "north y-coordinate," must give the distance north of the X axis. The Y axis of any zone must be parallel with the central meridian of that zone. The X axis of any zone must be at right angles to the central meridian of that zone.

When a land record or deed refers to coordinates for the purpose of defining the position of a point on a land boundary, the method and source for establishing the coordinates must be described in the land record or deed.

The official geodetic datums to which the geodetic coordinates are referenced within the state of Washington must be as defined for the NSRS. When values are expressed in feet, one foot equals 0.3048 meters. The appropriate use of other datums, other geodetic reference networks or systems, or other plane coordinate systems is not prohibited. Any other datums, networks, or systems used must comply fully with the information requirements for the WPCS, including but not limited to:

- the source of the datum, network, or system;
- the metadata of the observations;
- factor used to convert from meters to feet; and
- combined factors applied to land boundary lines used in land surveys or deeds to compute ground distances or areas.

Appropriation: None.

Fiscal Note: Available.

Creates Committee/Commission/Task Force that includes Legislative members: No.

Effective Date: Ninety days after adjournment of session in which bill is passed.

Staff Summary of Public Testimony: PRO: The proposed changes in this bill will reference federal standards within state RCWs. The GIS community follows and supports federal standards regarding coordinate systems. Adopting the proposed changes in this bill will allow Washington to be more nimble when the federal standards change and the state will be better able to plan for implementation. This bill will keep the state in step with private industry that will be adopting the new federal standards. Complying with federal standards reduces confusion, gives the state flexibility, and eliminates the redundancy of having two separate standards. The bill will give the state the tools to provide the same products that the private sector and the federal government is expecting.

Persons Testifying: PRO: Andrew Ryan; Joanne Markert, WATech/ State GIS Program Manager.

Persons Signed In To Testify But Not Testifying: No one.