
HOUSE BILL 2391

State of Washington

65th Legislature

2018 Regular Session

By Representatives Orcutt and Fey; by request of Department of Natural Resources

Prefiled 01/05/18. Read first time 01/08/18. Referred to Committee on Agriculture & Natural Resources.

1 AN ACT Relating to the Washington plane coordinate system;
2 amending RCW 58.20.110, 58.20.120, 58.20.130, 58.20.140, 58.20.150,
3 58.20.160, 58.20.170, 58.20.180, 58.20.190, 58.20.200, 58.20.210, and
4 58.20.220; and adding a new section to chapter 58.20 RCW.

5 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF WASHINGTON:

6 **Sec. 1.** RCW 58.20.110 and 1989 c 54 s 9 are each amended to read
7 as follows:

8 Unless the context clearly requires otherwise, the definitions in
9 this section apply throughout RCW 58.20.110 through 58.20.220 and
10 58.20.901:

11 (1) "~~((Committee)) NSRS~~" means the ~~((interagency federal geodetic~~
12 ~~control committee or its successor))~~ national spatial reference
13 system or its successor;

14 (2) ~~(("GRS 80" means the geodetic reference system of 1980 as~~
15 ~~adopted in 1979 by the international union of geodesy and geophysics~~
16 ~~defined on an equipotential ellipsoid;~~

17 ~~(3) "National geodetic survey"))~~ "NGS" means the national ocean
18 service's national geodetic survey of the national oceanic and
19 atmospheric administration, United States department of commerce, or
20 its successor;

1 ~~((4) "Washington coordinate system of 1927" means the system of~~
2 ~~plane coordinates in effect under this chapter until July 1, 1990,~~
3 ~~which is based on the North American datum of 1927 as determined by~~
4 ~~the national geodetic survey of the United States department of~~
5 ~~commerce;~~

6 ~~(5) ") (3) "WPCS" means the~~ Washington plane coordinate system
7 ~~((of 1983" means))~~, the system of plane coordinates under this
8 chapter ~~((based on the North American datum of 1983))~~ as determined
9 by the ~~((national geodetic survey of the United States department of~~
10 ~~commerce))~~ NGS.

11 (4) "Metadata" means data that describes other data. For the
12 purposes of this chapter, metadata means geodetic reference system
13 utilized, applicable epoch, and date of observation at a minimum.
14 Additional metadata is encouraged if it adds value.

15 **Sec. 2.** RCW 58.20.120 and 1989 c 54 s 10 are each amended to
16 read as follows:

17 ~~((Until July 1, 1990, the Washington coordinate system of 1927,~~
18 ~~or its successor, the Washington coordinate system of 1983, may be~~
19 ~~used in Washington for expressing positions or locations of points on~~
20 ~~the surface of the earth. On and after that date, the Washington~~
21 ~~coordinate system of 1983 shall be the designated coordinate system~~
22 ~~in Washington. The Washington coordinate system of 1927 may be used~~
23 ~~only for purposes of reference after June 30, 1990.))~~ The most recent
24 system of plane coordinates, which has been established by NGS, based
25 on the NSRS, and known as the WPCS, for defining and stating the
26 positions or locations of points on the surface of the earth within
27 the state of Washington shall be known as the "Washington plane
28 coordinate system."

29 **Sec. 3.** RCW 58.20.130 and 1989 c 54 s 11 are each amended to
30 read as follows:

31 The system of plane coordinates which has been established by
32 ~~((the national geodetic survey))~~ NGS for defining and stating the
33 positions or locations of points on the surface of the earth within
34 the state of Washington is designated as the "Washington plane
35 coordinate system ~~((of 1983))."~~

36 For the purposes of this system the state is divided into a
37 "north zone" and a "south zone," along with a statewide "Washington
38 Lambert zone."

1 The area now included in the following counties shall constitute
2 the north zone: Chelan, Clallam, Douglas, Ferry, Island, Jefferson,
3 King, Kitsap, Lincoln, Okanogan, Pend Oreille, San Juan, Skagit,
4 Snohomish, Spokane, Stevens, Whatcom, and that part of Grant lying
5 north of parallel 47° 30' north latitude.

6 The area now included in the following counties shall constitute
7 the south zone: Adams, Asotin, Benton, Clark, Columbia, Cowlitz,
8 Franklin, Garfield, that part of Grant lying south of parallel 47°
9 30' north latitude, Grays Harbor, Kittitas, Klickitat, Lewis, Mason,
10 Pacific, Pierce, Skamania, Thurston, Wahkiakum, Walla Walla, Whitman
11 and Yakima.

12 **Sec. 4.** RCW 58.20.140 and 1989 c 54 s 12 are each amended to
13 read as follows:

14 As established for use in the north zone, the Washington plane
15 coordinate system (~~(of 1983)~~) shall be named, and in any land
16 description in which it is used it shall be designated, the
17 "Washington plane coordinate system (~~(of 1983)~~), north zone."

18 As established for use in the south zone, the Washington plane
19 coordinate system (~~(of 1983)~~) shall be named, and in any land
20 description in which it is used it shall be designated, the
21 "Washington plane coordinate system (~~(of 1983)~~), south zone." As
22 established for use in the statewide Washington Lambert zone, the
23 Washington plane coordinate system shall be named, and in any land
24 description in which it is used shall be designated, the "Washington
25 plane coordinate system statewide Washington Lambert zone."

26 **Sec. 5.** RCW 58.20.150 and 1989 c 54 s 13 are each amended to
27 read as follows:

28 (~~("N" and "E" shall be used in labeling coordinates of a point on~~
29 ~~the earth's surface and in expressing the position or location of~~
30 ~~such point relative to the origin of the appropriate zone of this~~
31 ~~system, expressed in meters and decimals of a meter. These~~
32 ~~coordinates shall be made to depend upon and conform to the~~
33 ~~coordinates, on the Washington coordinate system of 1983, of the~~
34 ~~horizontal control stations of the national geodetic survey within~~
35 ~~the state of Washington, as those coordinates have been determined,~~
36 ~~accepted, or adjusted by the survey.)) (1) The plane coordinates of a
37 point on the earth's surface, to be used in expressing the position
38 or location of the point in the appropriate zone of the WPCS, shall~~

1 consist of two distances, expressed in feet and decimals of a foot or
2 meters and decimals of a meter, along with the metadata of the
3 observation. One of these distances, to be known as the "East x-
4 coordinate," shall give the distance east of the Y axis; the other,
5 to be known as the "North y-coordinate," shall give the distance
6 north of the X axis. The Y axis of any zone shall be parallel with
7 the central meridian of that zone. The X axis of any zone shall be at
8 right angles to the central meridian of that zone.

9 (2) Height is the coordinate value of the vertical elements of
10 the NSRS expressed as feet or meters, and identified as ellipsoid
11 heights or orthometric heights.

12 **Sec. 6.** RCW 58.20.160 and 1989 c 54 s 14 are each amended to
13 read as follows:

14 When any tract of land to be defined by a single description
15 extends from one into the other of the north or south coordinate
16 zones under RCW 58.20.130, the positions of all points on its
17 boundaries may be referred to either of the zones (north or south),
18 the zone which is used being specifically named in the description
19 along with the metadata of the observations.

20 **Sec. 7.** RCW 58.20.170 and 1989 c 54 s 15 are each amended to
21 read as follows:

22 The official geodetic datums to which geodetic coordinates,
23 including, but not limited to, latitude, longitude, ellipsoid height,
24 orthometric height, or dynamic height, are referenced within the
25 state of Washington shall be as defined for the NSRS.

26 For purposes of more precisely defining the Washington plane
27 coordinate system (~~(of 1983)~~), the following definition by the
28 national geodetic survey is adopted:

29 The Washington plane coordinate system (~~(of 1983)~~), north zone,
30 is a Lambert conformal conic projection (~~(of the GRS 80 spheroid)~~),
31 having standard parallels at north latitudes 47° 30' and 48° 44',
32 along which parallels the scale shall be exact. The origin of
33 coordinates is at the intersection of the meridian 120° 50' west of
34 Greenwich and the parallel 47° 00' north latitude. This origin is
35 given the coordinates: E = (~~(500,000)~~) 600,000 meters and N = (~~(0)~~)
36 100,000 meters.

37 The Washington coordinate system (~~(of 1983)~~), south zone, is a
38 Lambert conformal conic projection (~~(of the GRS 80 spheroid)~~), having

1 standard parallels at north latitudes 45° 50' and 47° 20', along
2 which parallels the scale shall be exact. The origin of coordinates
3 is at the intersection of the meridian 120° 30' west of Greenwich and
4 the parallel 45° 20' north latitude. This origin is given the
5 coordinates: E = ((500,000)) 600,000 meters and N = ((0)) 100,000
6 meters. The Washington plane coordinate system, statewide Washington
7 Lambert zone, is a Lambert conformal conic projection, having
8 standard parallels at north latitudes 46° 07' and 48° 25', along
9 which parallels the scale shall be exact. The origin of coordinates
10 is at the intersection of the meridian 120° 50' west of Greenwich and
11 the parallel 45° 15' north latitude. This origin is given the
12 coordinates: E = 400,000 meters and N = 1,000,000 meters.

13 **Sec. 8.** RCW 58.20.180 and 1989 c 54 s 16 are each amended to
14 read as follows:

15 Coordinates based on the Washington plane coordinate system ((of
16 1983)), purporting to define the position of a point on a land
17 boundary, may be presented to be recorded in any public land records
18 or deed records if the survey method used for the determination of
19 these coordinates is established in conformity with standards and
20 specifications prescribed by the interagency federal geodetic control
21 committee, or its successor. ((These surveys shall be connected to
22 monumented control stations that are adjusted to and published in the
23 national network of geodetic control by the national geodetic survey
24 and such connected horizontal control stations)) The method and
25 source of the coordinates shall be described in the land or deed
26 record. Standards and specifications of the ((committee)) NGS in
27 force on the date of the survey shall apply. In all instances where
28 reference has been made to such coordinates in land surveys or deeds,
29 the scale and sea level factors shall be stated for the survey lines
30 used in computing ground distances and areas, along with the metadata
31 of the observations.

32 ((The position of the Washington coordinate system of 1983 shall
33 be marked on the ground by horizontal geodetic control stations which
34 have been established in conformity with the survey standards adopted
35 by the committee and whose geodetic positions have been rigorously
36 adjusted on the North American datum of 1983, and whose coordinates
37 have been computed and published on the system defined in RCW
38 58.20.110 through 58.20.220 and 58.20.901. Any such control station

1 ~~may be used to establish a survey connection with the Washington~~
2 ~~coordinate system of 1983.)~~)

3 **Sec. 9.** RCW 58.20.190 and 1989 c 54 s 17 are each amended to
4 read as follows:

5 ~~((Any conversion of coordinates between the meter and the United~~
6 ~~States survey foot shall be based upon the length of the meter being~~
7 ~~equal to exactly 39.37 inches.)) When the values are expressed in
8 feet, the "U.S. survey foot" (one U.S. survey foot = 1200/3937
9 meters) shall be used as the standard foot for WPCS.~~

10 **Sec. 10.** RCW 58.20.200 and 1989 c 54 s 18 are each amended to
11 read as follows:

12 The use of the term "Washington plane coordinate system (~~of~~
13 ~~1983~~)" on any map, report of survey, or other document, shall be
14 limited to coordinates based on the Washington plane coordinate
15 system (~~of 1983~~) as defined in this chapter.

16 **Sec. 11.** RCW 58.20.210 and 1989 c 54 s 19 are each amended to
17 read as follows:

18 Whenever coordinates based on the Washington plane coordinate
19 system (~~of 1983~~) are used to describe any tract of land which in
20 the same document is also described by reference to any subdivision,
21 line or corner of the United States public land surveys, the
22 description by coordinates shall be construed as supplemental to the
23 basic description of such subdivision, line, or corner contained in
24 the official plats and field notes filed of record, and in the event
25 of any conflict the description by reference to the subdivision,
26 line, or corner of the United States public land surveys shall
27 prevail over the description by coordinates.

28 **Sec. 12.** RCW 58.20.220 and 1989 c 54 s 20 are each amended to
29 read as follows:

30 Nothing contained in this chapter shall require any purchaser or
31 mortgagee to rely on a description, any part of which depends
32 exclusively upon the Washington plane coordinate system (~~of 1927 or~~
33 ~~1983~~)).

34 NEW SECTION. **Sec. 13.** A new section is added to chapter 58.20
35 RCW to read as follows:

1 The provisions of this chapter shall not be construed to prohibit
2 the appropriate use of other datums and other geodetic reference
3 networks or systems.

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