

Bonneville Power Administration
Geodetic Control Data Sheet

Station: WM014 (214)
 Project: Wallula-Smiths Harbor-McNary
 Section: NE 1/4 18 Township: 7 North Range: 32 East Meridian: Willamette
 County: Walla Walla State: WA USGS Quad: Zangar Junction, Washington
 Surveyor: M R Heidecke Date Surveyed: July, 2001

Instrument:

The horizontal coordinates and orthometric elevation were established by GPS observations using six Trimble 4000 SSI dual frequency receivers with Compact L1/L2 antennae with ground plane.

Adjustment:

The Basis of Coordinates for this survey is the Washington State Coordinate System, South Zone, NAD 83 (1998). The horizontal component of the least squares adjustment was constrained by holding NGS Stations B 340 (A), B 502 (B), PENDLETON (B), STANFIELD EAST BASE RESET (B), and BURDEN (B). The vertical component of the least squares adjustment was constrained by holding NGS Benchmarks B 340 (First Order Class II), B 502 (First Order Class II), BURDEN (Second Order Class II), V 203 (Second Order Class 0), G 640 (First Order Class I). The elevation for point 106, 201, 249, and 255 were determined by differential leveling from G 640, D 502, E 525 and F 431 respectively and held.

Horizontal Datum: NAD83 (1998) Linear Unit: U.S. Survey Feet
 Vertical Datum: NAVD88 Linear Unit: U.S. Survey Feet

Latitude: <u>N 46-05-39.40509</u>	Longitude: <u>W 118-51-25.16761</u>
US State Plane Coordinate System: <u>Washington South Zone - 4602</u>	
Northing: <u>281,830.631</u>	Easting: <u>2,057,217.522</u>
Orthometric Elevation: <u>575.61</u>	Ellipsoid Height: <u>504.88</u>
Combined Factor: <u>0.99992698</u>	Convergence: <u>- 1-11-37</u>
Confidence: 95% Confidence ("1.96 Sigma") Values	
<u>Northing-0.010</u>	<u>Easting-0.007</u> <u>Elevation-0.098</u>

Monumentation: BPA 3/4-inch Aluminum Cap on 5/8-inch aluminum rod, flush with ground.

Stamping: U.S.D.O.E. Bonneville Pwr. Adm., WM014 - FEC-01 - ATB - GPS

To-Reach Description:

Begin at Wallula Post Office at Wallula, Wa. 99363. Drive north on Columbia Way (County Road #1870) 0.2 miles to intersection of Columbia Way and Washington State Highway #12. Drive north on Washington State Highway #12, 1.0 miles to intersection of a dirt road to the right (east). Sign at intersection says to Worden Farms & Boise Cascade Fiber Farm Office. The dirt road parallels 2 PP&L 69kV transmission lines. Drive southeasterly 2.7 miles along the PP&L lines to the station. The station is 240 feet west and 137 feet south of PP&L structure 5/2. Witness post is a yellow carsonite marker inscribed with BPA logo, bearing and distance to station.

RECEIVED BY
Walla Walla County Surveyor
 Date _____
 Rec'd By _____
 No. 02-19-9