

DNR Geodetic Survey & SRCW 2007 Work Plan

January 2007 – December 2007

Reference: SRCW Implementation Plan

Overall objective: To develop the basic infrastructure, planning, methods, and standards that will allow the Dept. of Natural Resources, Geodetic Survey Section to support the Spatial Reference Center of Washington's (SRCW) realization of a precise, accurate and easily useable three dimensional coordinate system.

Specific Tasks:

1. Leveling Assessment

- a. Consult with regional experts to determine current level of understanding of vertical stability (as measured by high precision leveling) within Washington State and characterize its spatial variation.
- b. Conduct follow-on study to determine what additional high precision leveling in the state has been conducted that may be of interest to the SRCW assessment.
- c. Based on above, select stable monuments or regions that can be used as the "Starting Point(s)" for statewide leveling projects.

2. Establish SRCW Leveling Procedures

- a. Document leveling methods and standards that integrate "best practices" to be used in Height Modernization leveling projects. Coordinate this work with NGS leveling experts.
- b. Assist in development and documentation of orthometric height establishment on CORS and WSRN stations. This process may involve the integration of trig-leveling and GPS measurements.

3. Conduct leveling field work

GPS

- a. Complete a height modernization measurement plan for Eastern Washington.
- b. Prepare two contract to GPS measure 30 benchmarks during each of the next 6-month periods (one contract for the FY04 & FY05 grants)

Leveling to existing CORS & WSRN stations to establish orthometric heights

- a. Define a group of 5 CORS and WSRN stations of that do not have current orthometric heights and plan leveling projects to them.
- b. Advertise and issue leveling contracts.

4. Outreach

- a. Continue to participate in regional meetings/conferences related to spatial positioning to further geodetic modernization goals of education and cooperation with other city, county, state and federal groups.
- b. Cooperate with the NGS and other spatial reference centers in the development of leveling training materials and training seminar opportunities for the survey community of Washington State.
- c. Work with the SRCW Executive Committee to recruit new members, solicit new funding sources, and conduct semi-annual Council meetings.
- d. Educate and support efforts to implement WSRN infrastructure and capability around the state and coordinate this with the WSRN participants.