

## **CLARIFICATION PAPER**

### **DGPS AS NAVIGATIONAL STANDARD**

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#### **INTRODUCTION**

Due to its ability to provide a repeatable accuracy of 2 meters, microwave navigation is identified in the Management Plan Technical Appendix - Phase I (p.1-13), as the positioning method to be used for PSDDA environmental site monitoring. The disadvantages of this system are that it requires a system operator on shore, has many complex system parts, and requires substantial operator training.

Recent advances in the Global Positioning System (GPS), and Differential Global Positioning System (DGPS) have supplanted microwave technology, and can provide an accuracy of 2 meters, with a real-time readout aboard ship. This technology is replacing other, more traditional, methods of navigation and positioning as the navigational standard, and is increasingly becoming the method of choice.

#### **PROBLEM IDENTIFICATION**

As the present microwave positioning systems become outdated, they will become more difficult to use and maintain. It is quite possible that this positioning method, specified in the PSDDA documentation, will no longer be available for use in the near future.

#### **PROPOSED ACTION/MODIFICATION**

Concurrent use of microwave and DGPS methods will be specified for environmental site monitorings at each site for the next monitoring. This will provide data for any needed correction factors of historical project data. DGPS will be used exclusively after one monitoring event at each site.

#### **REFERENCES**

PSDDA. 1988. Management Plan Technical Appendix - Phase I (Central Puget Sound). Prepared jointly by Seattle District Corps of Engineers, Washington State Department of Natural Resources, Washington State Department of Ecology, and U.S. Environmental Protection Agency, Region 10.