Sea Duck Joint Venture
Annual Project Summary
FY 06 – (October 1, 2005 – Sept. 30, 2006)

Project Title: SDJV Project # 81: Development of Sea Duck Population Estimates from Geo-referenced Aerial Surveys Conducted in Washington State and British Columbia

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Project Description: Waterbird surveys in Puget Sound and British Columbia have been used primarily to determine species-specific trends. While the integration of the Washington and British Columbia surveys has yet to be fully accomplished, survey personnel from both programs unanimously agree for the need to standardize and facilitate the processing of similar survey data and for the need to annually produce sea duck population estimates over surveyed areas.

A computer application will be developed to calculate sea duck population estimates from existing geo-referenced survey data from Washington state and British Columbia. The software system will provide a data analysis path extending from raw field data to stratified estimates of population density, variance, and size. The software will be developed and tested using PSAMP data and protocols, but every effort will be made to ensure that it can be easily adapted to the needs of other seabird and waterfowl survey programs.

Objectives: Standardize and facilitate the processing of similar survey data from Washington and British Columbia, and facilitate production of annual sea duck population estimates over surveyed areas.

Preliminary Results: A detailed work plan has been developed for development of the computer application, including definitions of input and output files, description of program modules and their interactions, and the expected development path. The system will carry out four basic functions: (1) Merging trackline (GPS) and observational data, (2) Data checking, (3) Classification of data by geographic strata, and (4) Estimates of bird density, population size, and variance by strata.

Project Status: Project is ongoing.