

Southern DataStream, Inc.

Southern DataStream (SDS) is a small consulting office based in LaBelle, a rural south Florida community in Hendry County with a traditionally agricultural economy. The technical focus of SDS is hydrologic science and engineering services provided to government agencies and private land owners. In parallel with the delivery of technical services, SDS works to develop and fabricate new hydrological measurement equipment, support international development through human resource training, assist local K-12 education through lectures and mentorship, and participate in governance and public advocacy groups towards improvement of regional land and water management.

SDS is managed by an engineer/supervisor, supported by a clerical/logistical staff and a group of 10-15 interns composed of university students and graduates who assist in all aspects of the project work. The SDS engineer, John Capece, has a Ph.D. in agricultural engineering from University of Florida with specialization in soil and water (hydrology). He is experienced in the design, development, and use of hydrological instrumentation as applied to south Florida conditions. He has graduate coursework experience in most component aspects of hydrology (surface, ground, stochastic, etc.) and computer modeling. He has experience in international education having served one year as a member of a USAID technical assistance team in Cameroon. In addition, he has experience in organizational development having established and served campus and national representative groups for graduate students and international students. Dr. Capece has over 20 years of experience in south Florida water resource issues and maintains this focus in parallel with other aspects of the SDS mission. Prior to founding SDS, Dr. Capece served as a faculty member at the University of Florida Institute of Food and Agricultural Sciences regional research station in Immokalee, 30 miles south of LaBelle. Most SDS projects involve UF, with assignment of the prime contractor or subcontractor role dependent on the particular technical emphasis of a specific project and the requirements of the sponsoring state agency.

SDS was created in July 1999 and incorporated a year later as a C-corporation with later designation as an S-corporation under the joint ownership of John Capece and Robert Capece, civilian employee of the U.S. Army in Germany and reserve officer with the rank of Major. SDS hosted its first intern in December 1999. As of May 2004 there have been 127 interns from 44 nations with an average duration of 4 months.

Core project work of SDS is the evaluation of agricultural best management practices (BMPs) with an emphasis on surface and subsurface flow and water quality monitoring, data management, results analysis, and reports preparation. In the course of executing these projects, SDS designs, tests, fabricates, deploys and maintains custom water flow measurement and sampling instruments including the hydraulic, mechanical, electrical, telecommunications, and information management systems. This provides interns with an opportunity for meaningful work in a efficient, multidisciplinary environment on tasks that result in operational field systems.

In addition to its core BMP work, SDS has been called upon for other hydrological projects such as irrigation water use estimation and water supply planning, river and canal systems storm water modeling, water use permit applications, and river channel restoration construction planning and management. Because of the unique talent pool that it brings to rural Hendry County, SDS has also been called upon by local government agencies and companies to provide services in other technical areas such as database development, web page management, GIS services, construction logistics management, and software/network development.

The goal of SDS is to evolve from its current total reliance on technical services contracts to a structure where training services revenue will support more of the operations. This would allow balanced emphasis on additional formalized training for the interns and community educational services to local K-12 and college students, while maintaining a strong set of long-term engineering/science projects to serve as the basis for technical training. SDS also intends to continue its efforts to develop new hydrological monitoring systems that will hopefully create a manufacturing, sales, and support operation in LaBelle serving clients and customers nationally.