

FLOW MONITORING ASSISTANCE SOUTH FLORIDA WATER MGT.



FLOW MEASURING USING
AN ACOUSTIC DOPPLER
CURRENT PROFILER,
ULTRASONIC VELOCITY
METER (UVM), DYE DILUTION
& ACOUSTIC POINT
VELOCITY METERS



PROJECT TASKS

- Discharge Measurements using Price-AA Meter
- Flow measuring using an Ultrasonic Velocity Meter (UVM)
- Flow measurement using Acoustic Point Velocity Meters (APV)
- Flow measurement using the Acoustic Doppler Current Profiler (ADCP)
- Dye-dilution flow measurement

The Hydrology and Hydraulics Division of the South Florida Water Management District provides hydrometeorologic data to assist in meeting operational, planning and regulatory needs of the District.

Flow data is an essential element of water resource planning, development and management. Legally mandated resources, conservation, enhancement and utilization projects such as surface water improvement and management (SWIM) planning, Everglades Resoration, water supply planning and flood control operations are dependent on flow data.

Flow data is used together with water quality parameters to calculate the nutrient loads going into environmentally sensitive areas such as the Water Conservation Areas and the Everglades National Park. Flow data is also used to assess condition to satisfy state and federal requirements for permit application/compliance in accordance with the Everglades Forever Act.

Hydrologic models used by the District for water supply planning rely on these data for input. Flow data is also necessary to estimate flood magnitude after major storm events.

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This project is a continuation of the Flow Monitoring Assistance Contract in force since 1996. For the last five years, more than 500 discharge measurements were made by a pool of consulting firms. Due to new monitoring stations being placed into operation, the work load has increased.