

# Two Bays January 2010 Science and Monitoring Program

**Project Title:** From Bays to Ocean: Port Phillip Bay 12 January 2010

**Lead Agency / Scientists:** Melbourne University - Malte Stuecker (PhD Candidate)

**Purpose:** To measure the rate of exchange between Port Phillip and Bass Strait waters across the Great Sands area of southern Port Phillip Bay.

**Background:** Through previous measurements undertaken as part of the Two Bays program scientists have concluded that the bay salinity has changed over the last decade to become more saline than Bass Strait waters. This aspect of water quality influences the rate of exchange of water between the bay and the ocean and has implications for many aspects of bay ecology including the movement of larval fish in the water column.

**Outline of Program:** Transects of water quality and currents will be made either side of the Great Sands in southern Port Phillip from bay to ocean entrance to assess exchange dynamics between Bass Strait waters and the hyper-waters of Port Phillip Bay. Measurements will be made by use of equipment known as an Acoustic Doppler Current Profiler and use of a Conductivity Temperature Depth probe provided by EPA Victoria.

Information will provide important validation and calibration data for developed numerical hydrodynamic and dispersion models of Port Phillip Bay. This is a repeated process study as undertaken in Jan 2009 2 Bays survey.

**For Further Information:** [www.epa.vic.gov.au](http://www.epa.vic.gov.au)

## Image:

This is a representation of data showing the salinity of Port Phillip as compared to Bass Strait and indicates the area that will be surveyed as a part of the Two Bays 2010 project.

The small inset shows a profile of salinity at the entrance to the bay.

