BATHYMETRY SURVEY

Infofish has an array of on the water solutions for high resolution, lower cost/acre bathymetry for fisheries or recreational purposes without the need to acquire multi-beam scans of the water body. Infofish can tease out in detail specific features while maximising the efficiency in mapping the areas that are less interesting.

WHO WE ARE

Infofish is a leading expert in the field of Echosounder based surveys, having surveyed over 450,000 acres in over 50 locations for local and international clients. We work hard to deliver the most comprehensive and cost-effective ultrasonic aquatic surveys on the market, revolutionising how biomass, habitat, and bathymetry surveys are conducted.

BATHYMETRY FOR INSHORE AND INLAND

Collecting high quality bathymetry presents many challenges from underwater hazards, changing water levels to the sheer size of many water bodies. Infofish has thousands of hours of practical experience of how to address the challenges on the water.

- Rivers, Estuaries, Bays and Impoundments
- Tidal areas and rapidly changing water levels
- Navigation hazards and key underwater features

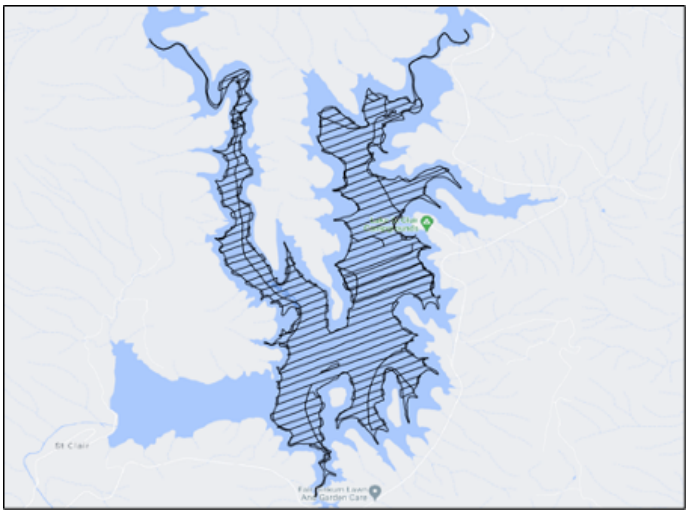
Survey Design
Preparation and Planning

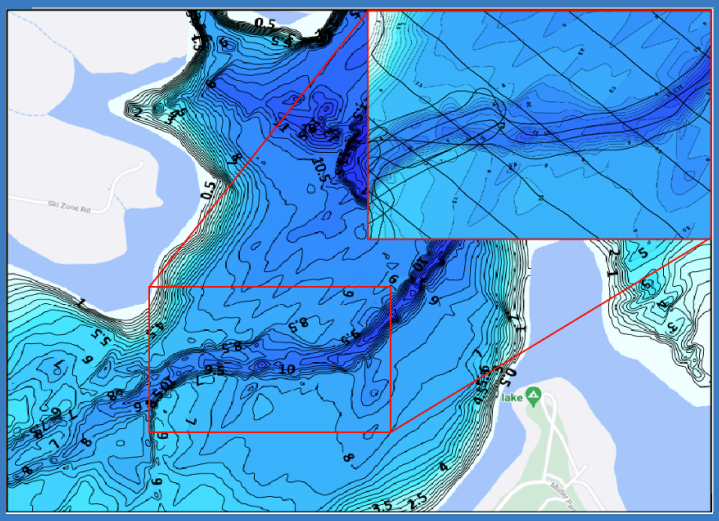
Riverine:

- A serpentine navigation of the river channel from bank to bank, moving up or downstream
- two longitudinal transects (one upstream and one downstream) with the vessel travelling parallel and as close to the bank as possible, and
- a mid-channel transect that follows the deepest point of the channel along the survey reach.

Enclosed waters / impoundment:

- a shoreline / edge survey of the entire waterbody, and
- a number of transects across the waterbody, spaced 100m apart, and a return track in between as the vessel returns to the start point for the next fish biomass transect.





Data Collection
On the water

Bathymetry data is collected using Humminbird Helix Mega SI GPS fish finders (Helix) during pre-survey and the fish biomass surveys. To avoid accidental data corruption or loss, two helix units are networked with a primary and slave unit both set to record. Pre-survey aims to uncover features such as channel shape, aggressive bank slopes, submerged points, point bars and islands. To improve the data resolution and mapping imagery, additional survey lines clean up these key features.

Data Cleaning and Compiling
Post Processing

All bathymetric data is reviewed using the ReefMaster software and corrected where the bottom readings have been calculated incorrectly. Errors in bathymetric detections bottom are common where the substrate is large rocks or boulder fields, steep drop-offs and river channel banks passed over at speed, where submerged standing timber is extensive or when water surface is wind chopped. The shoreline / edge sidescan imagery from the habitat survey is used to generate a zero line or the point at which the water meets the land at the time of survey.