

GEO-PROCESSING TECHNIQUES

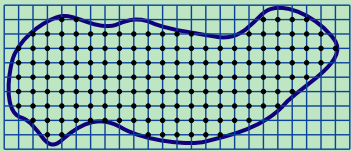
SURVEY STRATEGY

MAPPING SURVEY DATA

MAPPING DEPTH CONTOURS

CALCULATION OF BATHYMETRIC STATISTICS

GRID SURVEYS

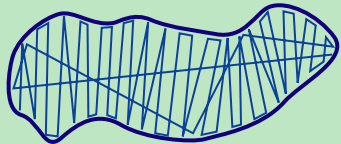


- LOCATE GRID ON MAP OR AERIAL PHOTOGRAPHS
- PLOT INTERSECTION DEPTHS
- DRAW SHORELINE BASED ON GRID OR AERIAL PHOTO

- MANUAL INTERPOLATION OF CONTOUR DEPTH POINTS ALONG GRID LINES
- HAND DRAW CONTOUR LINES CONNECTING CONTOUR DEPTH POINTS

MAP-BASED MEASUREMENT SKILLS

TRANSECT SURVEYS



HUMAN TECHNOLOGY

- LOCATE TRANSECTS ON MAP OR AERIAL PHOTOGRAPHS
- LOCATE CONTOUR DEPTH POINTS ALONG TRANSECTS

GPS AND GIS TECHNOLOGY

- USE GPS POSITIONS TO PLOT SHORELINE AND TRANSECTS
- DIGITIZE DEPTH POINTS ALONG TRANSECTS

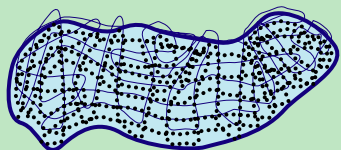
- HAND DRAW CONTOUR LINES CONNECTING CONTOUR DEPTH POINTS
- DRAW SHORELINE

MAP-BASED MEASUREMENT SKILLS

- COMPUTER INTERPOLATION OF CONTOUR LINES
- CHECK FOR INTERPOLATION ERROR

COORDINATE-BASED GIS MEASUREMENT

X Y -Z POINT SURVEYS



- USE GPS POSITIONS TO PLOT SHORELINE AND XY-Z POINTS
- PLOT SHORELINE AND DEPTH POINTS OVER A DOQ

FLUVIAL LAKES

- SYMBOLIZE DEPTH POINTS
- HAND DRAW CONTOUR LINES

GLACIAL LAKES

- GENERATE DEM
- INTERPOLATION OF CONTOUR LINES
- CHECK FOR INTERPOLATION ERROR

COORDINATE-BASED GIS MEASUREMENT