Generating surface grids from survey points

1. Surface generation was carried out using ArcView 3.2a with the spatial and 3-D analyst.
2. Raw point data is checked for erroneous points or points collected outside the profile survey which are deleted.
3. Straight lines are digitised along each profile path and survey points are snapped to this line (snapping distance generally <2m). Fixed snaplines exist along groynes and at the back of the beach if there exists a seawall or cliff.
4. Points are snapped to these fixed snaplines to ensure identical extent of surveys.
5. A polygon is created around the survey extent (fixed boundary where there are groynes and seawalls / cliffs, variable extent seaward and landward)
6. The surface is generated as a TIN
7. The TIN is converted into a grid with a grid cell size of 0.3x0.3m and an extent based on a fixed polygon that is larger than any survey extent to ensure direct comparability of grids
8. The grid is clipped using the survey polygon to remove all surfaces outside the area of points measured and e.g. across groynes.

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