

PC14 Supporting Analysis for the Tsunami Risk Management Area and underlying zoning

1. **Tsunami Risk Management Area (TRMA) and underlying zoning as part of the s42A Report and outstanding zoning issues** - Council proposes that the TRMA overlay inform the underlying zoning, specifically whether a property is enabled for medium density development (i.e. zoned MRZ) or retains its operative zoning being either Residential Suburban or Residential Suburban Density Transition Zone. Ms Oliver within her s42A Report discusses the detailed site-specific assessment that is required to be undertaken to establish logical and most appropriate zone boundaries, including having regard to a further recommendation of Ms Oliver that those properties only 30% or less impacted by the TRMA are zoned MRZ. Whilst the Council spatial analysis undertaken to date has progressed this detailed assessment, it has been unable to be completed. At their time of the Councils reply, the zoning of properties partly impacted by the TRMA continues to be somewhat sporadic, creating pockets of zoning which in some locations zones only one or two properties different to their surrounds.
2. **Requirement for further directed criteria to inform underlying zoning** - To complete the spatial analysis and zoning evaluation, criteria need to be prepared and accepted by the IHP, essentially developing the methodology/rationale for the inclusion of each 'in question' property within a specific zone. Examples of such criteria are provided below, noting that these only provide direction for singular properties and further criteria is required to direct the rezoning of groups of properties, including groups of properties within a residential block with discontinuous/disconnected zoning.

- i. Where a single property is impacted by the TRMA and on first-cast may be recommended to retain the Operative District Plan zoning (RS/RSDT), based on the on-line zoning maps submitted with the right of reply, if surrounded by MRZ, rezone this property as MRZ (see attached example below) provided the property is within the Flood Management Area and will continue to be managed in terms of floor level requirements. This site will still be at an elevated risk from tsunami inundation, however to achieve a coherent zoning layer this change is considered appropriate.

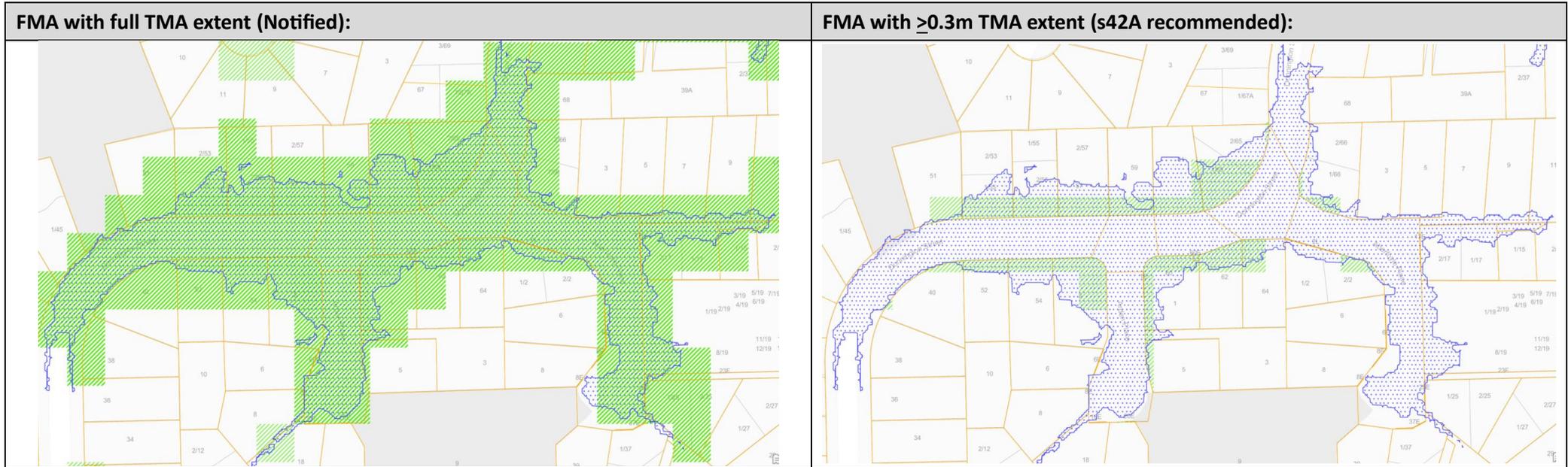


- ii. Where a property is impacted by the TRMA and on first-cast may be recommended to be MRZ, based on the on-line zoning maps submitted with the right of reply, if surrounded by RS or RSDT, rezone this property as RS or RSDT (see attached example below).

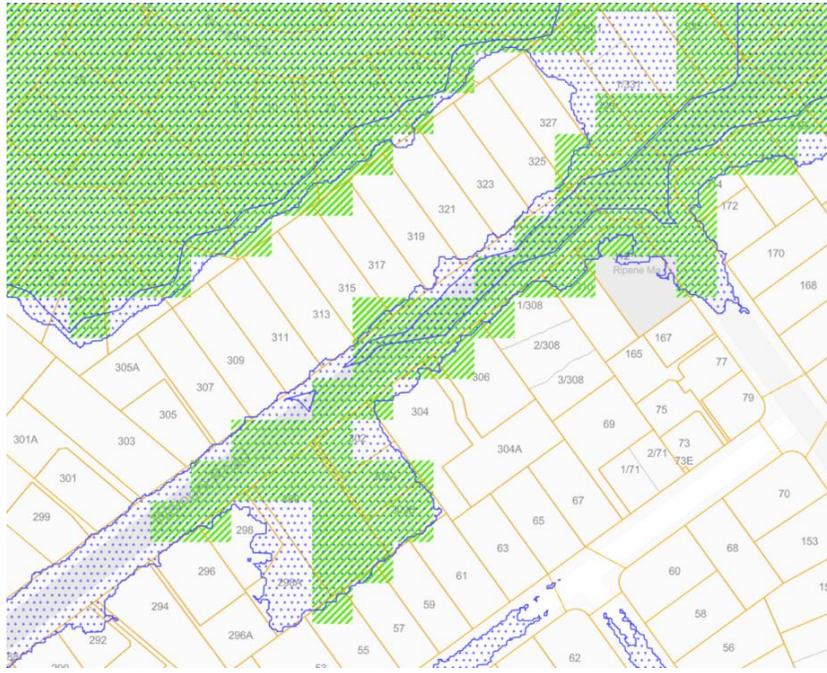


3. **Explanation of source overlays to assist the application of directed criteria to inform underlying zoning** - The following compares the spatial extent of the operative Flood Management Area (based on LiDAR) against the PC14 Tsunami Management Area as notified, and Tsunami Risk Management Area recommended under the s42A Report of Sarah Oliver. By contrast the TMA/TRMA is based on a 15m grid analysis (raster data), while the FMA is based on detailed vector data applying a bathymetry analysis. The TMA analysis is purposefully more broad-brush in recognition of the scale of influence and different purpose. The average parcel width (as demonstrated with the Sunlight Access QM) is in the order of 17m, thereby each grid cell for the TMA can be seen to represent a single parcel in extent. The Flood Management Area (FMA) is not a QM but is used in the District Plan to require minimum building floor heights. Whilst the Flood Management Area (**FMA**) is not proposed as a qualifying matter under PC14, it is a useful layer to utilise in evaluating the options for the zoning approach for properties impacted by the s42A

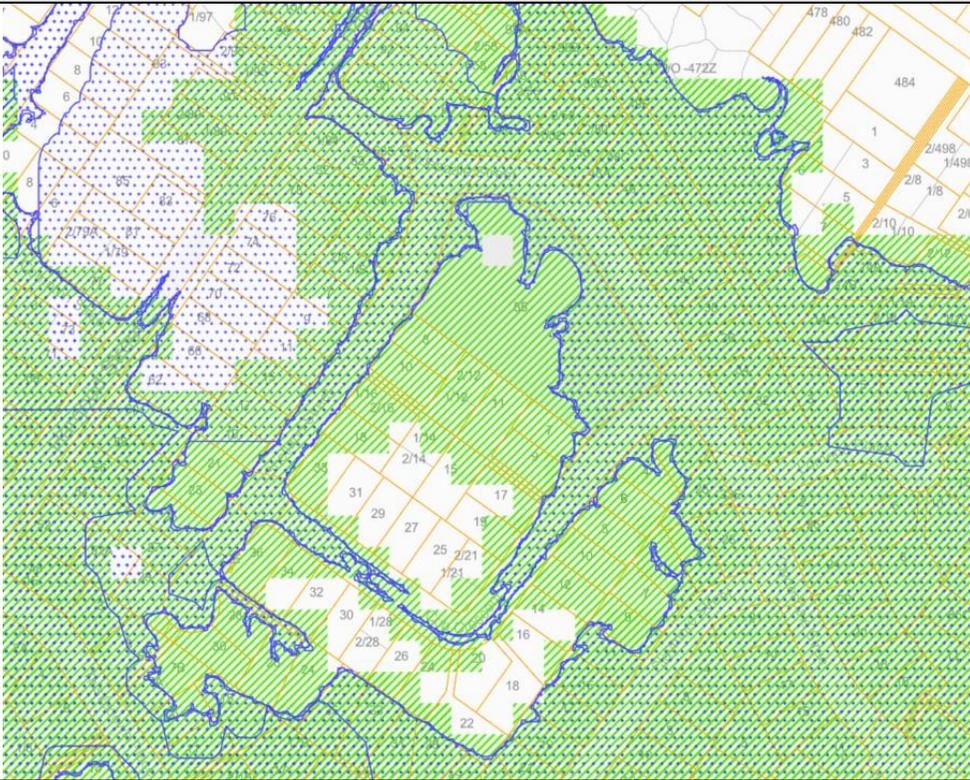
recommended Tsunami risk Management Area (i.e. including only those properties inundated to depths of 0.3m or greater). So too is the notified (full spatial extent) of the TMA, as whilst the risk is less in the differential area, it may be helpful as an input into smoothing the current irregularities in the zoning pattern. As demonstrated below the TRMA (depths of 0.3m or greater) sits spatially within the FMA.



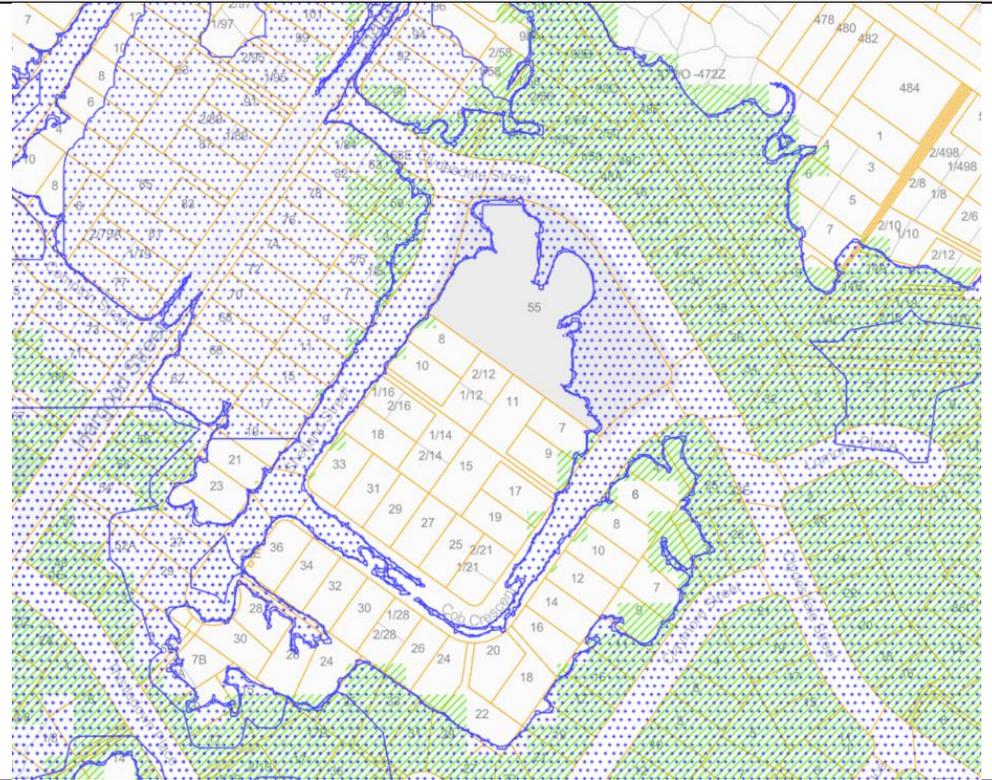
FMA with full TMA extent (Notified):



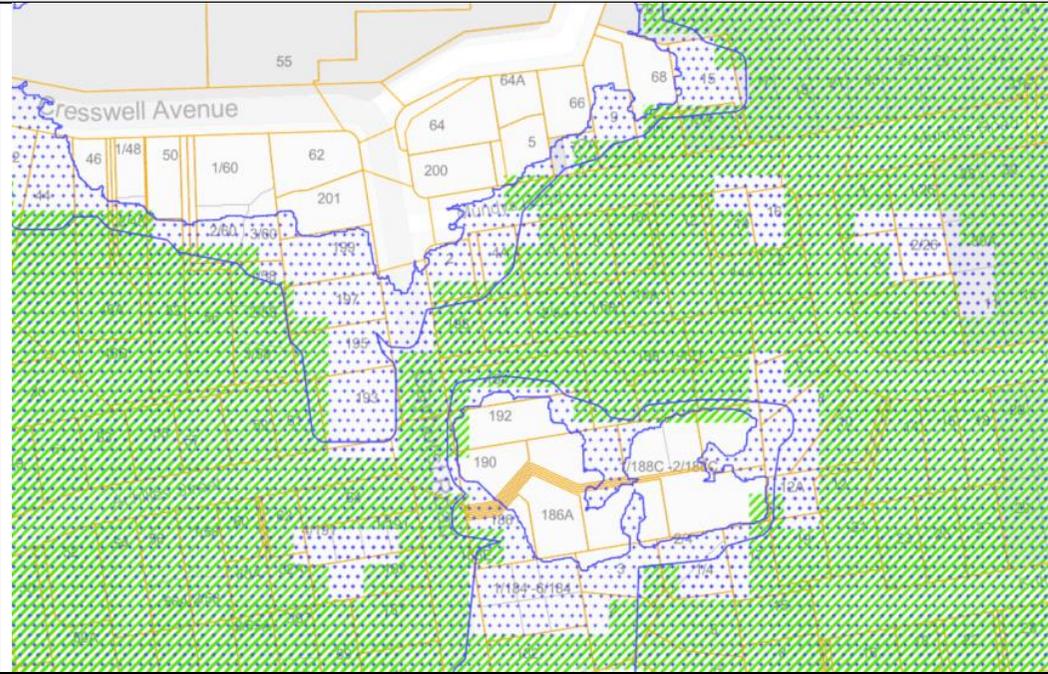
FMA with full TMA extent (Notified):



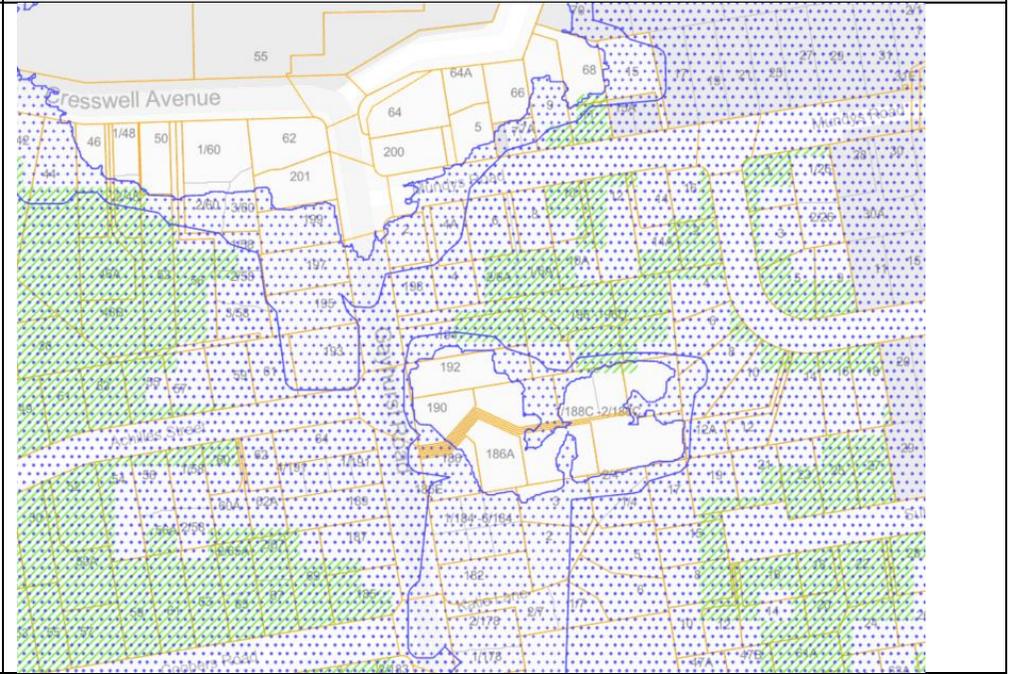
FMA with $\geq 0.3\text{m}$ TMA extent (s42A recommended):



FMA with full TMA extent (Notified):



FMA with $\geq 0.3m$ TMA extent (s42A recommended):



The below examples show s42a recommended zoning with the updated TMA extent ($\geq 0.3m$):

