## **Spatial Display**



## **Dense Layer Handling**

Geometric objects displayed in TNTgis can have millions of elements. Examples include LIDAR files with point elevation data and geometric objects with detailed map data covering large areas (states/provinces or entire countries). When such objects are displayed so that the entire data extents are visible (the initial default view), densely-packed geometric elements can overlap and obscure each other as well as any underlying layers. In addition, drawing such objects at full extents may take a substantial amount of time, yet yield a display that is not informative.

The first time you display such a dense geometric layer, the Display process detects it and opens the Dense Layer Handling window (see illustration below). This window explains the issue with high feature detail or density and provides you with options for how to display the layer. Your main options are:

- Do not add layer
- Add with full scale range: (adds at full extents regardless of the required display time).
- Add with scale range of: adds the layer with the specified scale range (the default).



The scale fields for the third option provide minimum and maximum map scales (map scale fractions). So the minimum range value (field on the left) sets the zoom-out limit for visibility for the layer: the layer is visible when the view is zoomed in beyond this scale and hidden when the view is zoomed out beyond this scale. A value is automatically provided for the minimum scale number by estimating the average element spacing in the object. You can change the minimum scale number value if desired. An appropriate minimum scale number for a particular object is a subjective choice. If you add the layer with this option and have the Save scale choices for future use of same object/file toggle turned on, the specified scale range values are saved with the display parameters for the object for subsequent display sessions. These scale range values can be changed at any time using the Layer Controls window. (If you add the layer with full scale range and do not manually set a limited scale range, you may be presented with the Dense Layer Handling window again when you subsequently display the object.)



If you choose to add the layer, turning on the *Initially hidden* toggle adds the layer but turns off its Show / Hide checkbox. This setting is useful when you are adding a number of layers at once and you want to manually zoom the display after adding the layers or to open the Layer Controls window for the hidden layer to manually change its scale range. The layer is automatically hidden in the Locator if you make this choice. You can also leave the *Hide in locator* toggle turned on if you choose not to hide the layer in the main view.

When you choose a number of objects at once, you can choose to *Apply same settings to remaining selections of the same type* to avoid repeat appearances of the Dense Layer Handling window.