**ni\_data\_proc\_connect\_nodes\_to\_point\_on\_nearest\_edge\_in\_search** – this function connects the closest point on an edge to a node provided it lies within a specified search distance of each node.

**Parameters:**

1) Edge\_table\_name: string e.g. data\_national\_grid\_gas\_pipeline\_feeder

2) Edge\_Geometry table geometry column name: string e.g. geom.

3) Edge table primary key: string e.g. gid

4) Node\_table\_name: string e.g. data\_national\_grid\_gas\_site\_centroids

5) Node table geometry column name: string e.g. geom.

6) Node table primary key: string e.g. gid

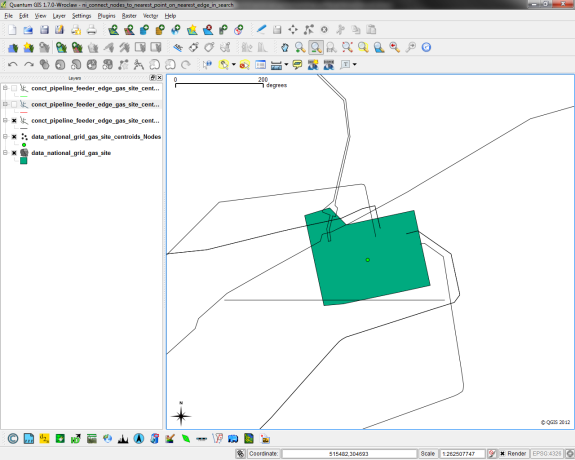
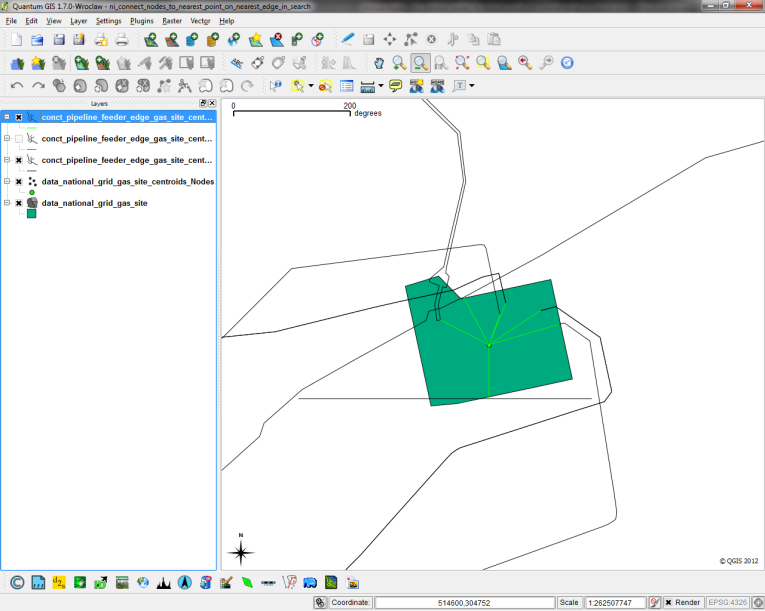
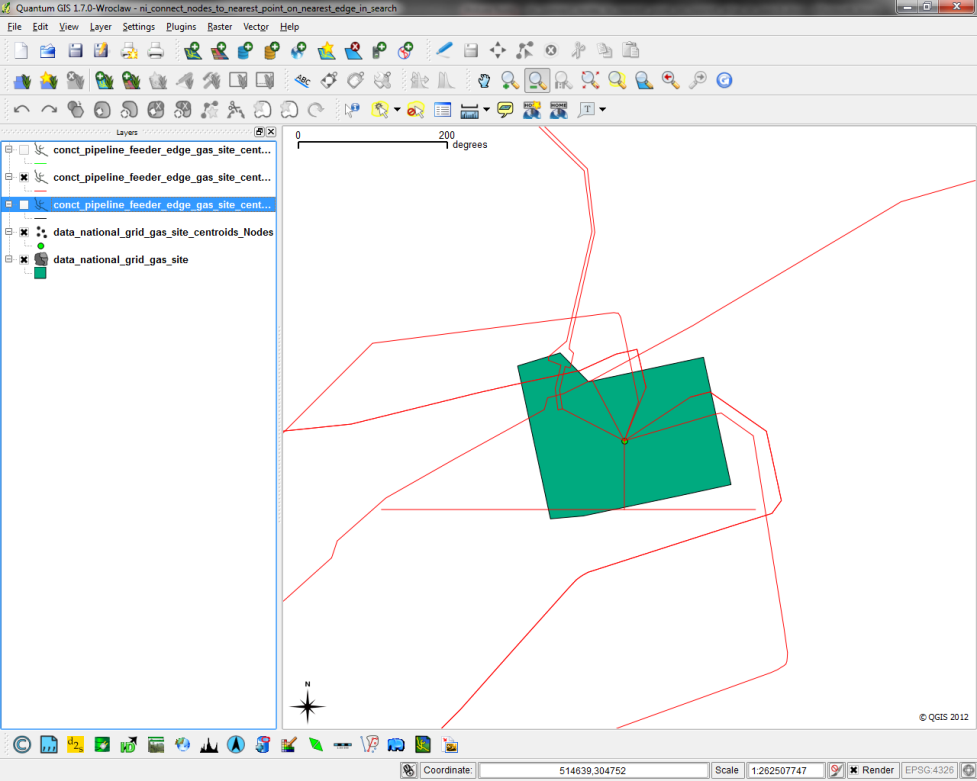
7) Output table name: string e.g. conct\_pipeline\_feeder\_edge\_gas\_site\_centroid\_edge\_end\_pt

8) Boolean indicating whether the output table should be added to the geometry\_columns table: true/false

9) Search distance in (m): double, float, numeric – used to determine whether the distance between a hanging edge and a node is valid, and will result in a join i.e. distances greater than the search distance will result in no additional connection, whereas distances less than the search distance will result in a new connection

e.g.

**SELECT \* FROM ni\_data\_proc\_connect\_nodes\_to\_point\_on\_nearest\_edge\_in\_search ('data\_national\_grid\_gas\_pipeline\_feeder','geom', 'gid', 'data\_national\_grid\_gas\_site\_centroids','geom', 'gid', 'conct\_pipeline\_feeder\_edge\_gas\_site\_centroid\_near\_edge\_pt', false, 1000) f(gid integer, objectid numeric, inspecti\_1 varchar(254), subtypecd numeric(10,0), primaryind numeric(10, 0), gavprimary numeric(10, 0), pipe\_name varchar(255), ng\_owned varchar(2), geom geometry, connection\_point\_geom geometry, node\_to\_point\_distance numeric, additional\_geom geometry, additional\_combined\_geom geometry) ORDER BY gid ASC;**



**Figure.1** – Edges are not joined to the appropriate node (black, tl). Run the tool **ni\_connect\_nodes\_to\_nearest\_point\_on\_nearest\_edge\_in\_search** to auto-generate the appropriate additional edge geometry (green tr), based on the afore-mentioned supplied parameters. The red connections denote the combination of the old geometry + the newly derived geometry (bl). **Note** that this connects to the nearest point on the edge, which is not necessarily the end of the edge.

This table would be output with \_join appended to the input output table name (parameter 7). Secondly a table with \_unique appended to the input output table name (parameter 7) is also written to the schema that contains the original geometry replaced with the newly derived geometry.