

# TUSCOLA BAY WIND FARM DRAIN TILE DISLOCATION AND REPAIR APP

Stretching across Tuscola, Bay and Saginaw Counties, the 17,000- acre Tuscola Bay Wind Farm is home to 75 1.6-megawatt wind turbines capable of generating power for about 50,000 homes.

During construction of the turbines, several miles of transmission main was installed underground using a trenching machine. While digging the trenches, an excessive amount of farm field drain tiles were consistently being cut by the trenching machines. Because the farmers' crop yields depend heavily on the conditions of the fields and the drain tiles, it was important that each drain tile was repaired accordingly.

Crome Data Management, LLC developed an app that allowed inspectors to pinpoint and identify every location where a drain tile was cut. As soon as a tile was cut, the inspector would record the data - including date, time, GPS coordinates, depth, and size of tile. A photograph was also taken to coordinate with each cut location. The location, data and images were then entered onto an aerial map image using ArcGIS.

Now, all interested parties can open the map and click on each location to view details about each tile location. This was an important tool to ensure that each cut drain tile was repaired accordingly, and the ArcGIS map allowed stakeholders to view all data related to when the tile was cut and when it was repaired. In total, close to 5,000 tile locations were entered onto the final interactive map.

