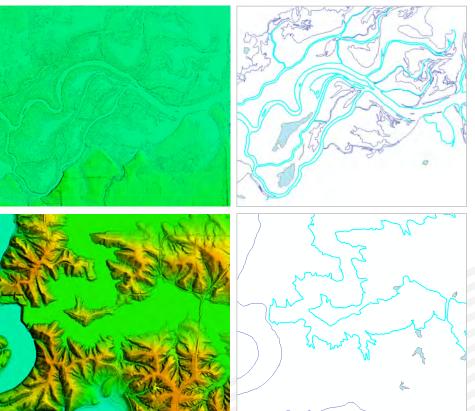
High Density Lidar Data Facilitates USACE Water Management Coralville Lake, Iowa

any of Surdex's projects for the U.S. Army Corps of Engineers (USACE) – St. Louis District involve acquisition of high-density lidar data or high-resolution imagery over bodies of water, which is used to monitor and manage these resources. In March of 2019, Surdex was tasked with acquiring and processing lidar data of Coralville Lake in Iowa for the USACE – Rock Island District through our contract with the St. Louis District. The project area included 179 square miles in Johnson and Iowa counties.

Surdex acquired QL1 lidar data, which we then used to create several deliverables, including:

- Hydro-flattened DEMs: bare-earth (1'GSD) and key points (2'GSD)
- Geodatabase with hydro features and 1' contours
- LAS total point cloud, bareearth, and key points tiles
- Intensity images (1'GSD)

This high-density, comprehensive dataset is essential to the USACE's water management tasks. Producing this data in a timely manner is critical, as this allows the Corps to examine the nearreal-time condition of the area of interest. After acquiring the data in April and May, Surdex provided the deliverables in early July.



1-foot bare-earth DEMs (left) and lidar-derived hydro features (right)



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