PLATTE RIVER RECOVERY IMPLEMENTATION PROGRAM
2024-2026 Annual LiDAR and Aerial Photography RFP
Final Q&A: April 12, 2024

1) Note: there are a number of questions related to accuracy of bathymetric LiDAR - consolidating them here. Would the Interagency Working Group on Ocean and Coastal Mapping (IWG-OCM) strategy document be used to reference the quality of bathymetric lidar for mapping? Could bathymetric lidar collected for the Platte River program could be assessed as QL2B, in similar fashion as topographic lidar would be assessed as QL2.?

Yes. The table below and the IWG-OCM Coastal Mapping Strategy 1.0 (Posted at the location of this RFP advertisement, platteriverprogram.org) can be used to assess the vertical and horizontal accuracy needs of the project. QL2B is an appropriate QL definition for bathymetric points in this project.

Table 1. Quality level definitions for bathymetric LIDAR. These definitions are applicable for areas submerged at the time of survey.

Bathy LIDAR Quality Level	Source	Vertical accuracy coefficients a,b	Nominal Pulse Spacing (m)	Point Density (pt/m^2)	Example Applications
$QL0_B$	Bathymetric LIDAR	0.25, 0.0075	≤0.7	≥2.0	Detailed site surveys requiring the highest accuracy and highest resolution seafloor definition; dredging and inshore engineering surveys; high-resolution surveys of ports and harbors
$QL1_B$	Bathymetric LIDAR	0.25, 0.0075	≤2.0	≥0.25	
$QL2_B$	Bathymetric LIDAR	0.30, 0.0130	≤0.7	≥2.0	Charting surveys; regional sediment management General bathymetric mapping; coastal science and management applications Change analysis; deep-water surveys, environmental analysis
$QL3_B$	Bathymetric LIDAR	0.30, 0.0130	≤20	≥0.25	
$QL4_B$	Bathymetric Lidar	0.50, 0.0130	≤5.0	≥0.04	Recon/planning; all general applications not requiring higher resolution and accuracy

2) Requesting confirmation that no vegetated vertical accuracy (VVA)-equivalent points are required for this project.

Correct.

3) Are there any horizontal accuracy requirements for the aerial imagery?

Contractors should explain their proposed aerial imagery horizontal accuracy capabilities within their proposal. The accuracy of the imagery should be suitable for the application described in the RFP and appropriate for 6-inch pixel resolution deliverables.

4) The Highest Hit model specifies it will be used to "approximate vegetation height". A DSM model will only give absolute height relative to the datum (Geoid 03). Is a normalized DSM (nDSM) desired instead to give relative vegetation heights (i.e., height above ground)?

The Highest Hit deliverable will be used in raster subtraction with the bare earth model to output vegetation height above ground. RFP should include the deliverable that will accomplish that objective.

5) With the importance placed on compatibility with previous surveys, will historical data be provided to aid in matching the newly acquired data?

All previous compatible data including LiDAR, surveys, rasters, etc will be provided to the selected contractor.

6) How many and what type (target or photoID) of ground control points were used for the imagery in previous years? Can the coordinates be made available? Can coordinates of LiDAR checkpoints from previous years be made available?

As part of the multi-year compatibility, LiDAR is calibrated to approximately 800 survey points collected in 2020. Accuracy has also assessed annually using approximately 500 newly collected points across the project area. Approximately 1,000 bathymetric and wetted edge checkpoints were also collected to assess bathymetric accuracy. Contractors should describe their proposed plan for accuracy assessment to meet the needs described in the RFP.