

LiDAR Data Quality Level Choices¹

Quality Levels	Data Source	Horizontal Resolution	Vertical Accuracy	
		Point Density	RMSEz in Open Terrain	Equivalent Contour Accuracy
QL 1	LiDAR	8 points/m ²	9.25 cm	1 foot
QL 2	LiDAR	2 points/m ²	9.25 cm	1 foot
QL 3	LiDAR	1 – 0.25 points/m ²	≤18.5 cm	2 feet
QL 4	Imagery/ LiDAR	1 – 0.04 points/m ²	46.3 – 139 cm	5 – 15 feet
QL 5	Imagery/ IFSAR	0.04 points/m ²	92.7 – 185 cm	10 – 20 feet

Bathymetric LiDAR requirements assessed for three Quality Levels to include Low, Standard and High. Standard Quality Level (3-5 meter post spacing; RMSEz ~ 20 cm)

Note – USGS LiDAR base acquisition specification version 13 is for QL3 data

¹ NEAA 2012 Summary, *The National Map*, USGS; http://www.nsgic.org/public_resources/2012MY_Results-of-National-Enhanced-Elevation-Assessment.pdf.