

DPH-5 Report on Coordinate Reference System

The USGS Lidar Base Specification 2022 rev. A states: "Lidar data and all related or derived data and products shall be processed and delivered in a single CRS agreed upon in advance of data collection by the USGS–NGP and all project partners and cooperators. The complete CRS definition and its WKT representation, both horizontal and vertical, shall be documented as part of the agreement. In all cases, the CRS used shall be recognized and published by the European Petroleum Survey Group (EPSG). Each project shall be processed and delivered in a single CRS, except in cases where a project area covers multiple CRSs such that processing in a single CRS would introduce unacceptable distortions in part of the project area. In such cases, the project area is to be split into subareas appropriate for each CRS. The following requirements apply to the subareas:

- Each subarea shall be processed and delivered as a separate subproject with its own CRS.
- All requirements for a single project will apply to each subproject.
- The DPA boundaries of adjacent subareas shall have topologically coincident boundaries along their common borders.
- For each project or subarea, all spatial data within the area shall be in the same CRS.
- An additional CRS delivery, arranged in advance, may also be required on specific projects."

The purpose of this section is to show the coordinate reference systems of the LAS files for the lidar data. The project specifications should be reviewed to ensure that the Coordinate Reference Systems listed in this report are as expected.

All LAS files are defined as:

Horizontal CRS = NAD83(2011) / Illinois West (ftUS)
EPSG Code = 6457
Vertical CRS = NAVD88 height (ftUS)
EPSG Code = 6360
Geoid Model = US Geoid Model of 2018