Montana Elevation Working Group: 2022 Lidar Priority Areas of Interest

Agenda

Aug. 10, 2021, 10:00a-11:30a

- Status update lidar acquisitions and data availability
- Overview of USGS 3DEP application process
- Review of lidar gaps
- Share your needs and areas of interest for 2022 lidar acquisitions

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Lidar Status Update

https://msl.mt.gov/gis/lidarinventory



Approximately 70% complete or in progress (108K sq miles)

Core lidar-derived products: Bare-earth elevation model, Digital Surface Model, Intensity, Hillshade

New products (in progress):

- Canopy height GeoTiffs
- Hydrologic Position Index GeoTiffs
- Relative Elevation Models
- Contour web service Lidar for LOMA
- Vegetation products Glen Lake fuels reduction project draft app: <u>https://arcg.is/0b0miH0</u>
 - Interest group?
 - Field data available?

Hydrographic Position Index (HPI)

Illustrating Surface Water Conveyance and Connectivity for Hydrography Interpretation and Development





USGS 3DEP Broad Agency Announcement (BAA)

- The 3DEP Broad Area Announcement will be released Aug. 16th. Link here [usgs.gov].
 - Webinar about the BAA tomorrow, Aug. 11th at 11a MT [registration open]
 - Cost estimate request by Sept. 3
 - Application due Oct. 1
- Montana State Library will serve in coordination role, seek review from all funding partners, and complete the application.
- A good-faith funding commitment from each partner needs to be included with the application.
- If successful, each funding partner will need to have an interagency agreement (IAA) or join funding agreement (JFA) in place with the USGS 60-days before lidar acquisition begins. Approximately March 2022 at earliest.
 - A federal agency wanting to use FY21 funds needs a signed agreement or mod in place by Aug. 20th
- If successful, lidar acquisition will begin spring 2022 after snow off or fall 2022 before snow fall.
- Lidar data available <u>approximately fall/winter 2023</u>. Expect an 18-month turnaround time.
- If the GPSC contract mechanism is used, then the USGS takes care of contracting, project management, QC, and technical aspects of the lidar acquisition and deliverables.

Discussion Topics

- 1. There are two options for contracting mechanism: USGS GPSC and Cooperative Agreement (financial assistance). Which should we use?
- 2. The USGS 3DEP application requires a cost estimate obtained through USGS (IGCE) or from a lidar acquisition vendor. Which should we use?
- 3. MSL is looking into options for pooling funding from multiple partners. Would this make it easier for your organization to contribute?
- 4. Is there interest in a MT lidar training webinar series? Topics?

MT Lidar gaps



Cost Estimate by County

County Name	SQMILES of Lidar Remaining	Est. Cost QL1	Est. Cost QL2	Est. Partner Cost Share Needed	Organizations with Priority AOI in County	Draft State Priority Rank
YELLOWSTONE	2561.94	\$1,024,774.53	\$576,435.67	\$230,574.27	DNRC Floodplain Mngmt; AE2S; Yellowstone County; City of Billings; HDR; NRCS	1
LEWIS & CLARK	3031.20	\$1,212,481.80	\$682,021.01	\$272,808.41	DNRC Floodplain Mngmt; City of Helena	1
MCCONE	2590.89	\$1,036,355.60	\$582,950.03	\$233,180.01	DNRC Floodplain Mngmt; McCone County; USFWS	1
BEAVERHEAD	5409.34	\$2,163,734.69	\$1,217,100.76	\$486,840.31	DNRC Water Resources; USFS; USFWS; MBMG	1
MADISON	3220.69	\$1,288,277.96	\$724,656.35	\$289,862.54	MBMG; USFS; Montana State University	1
MUSSELSHELL	1816.87	\$726,747.14	\$408,795.27	\$163,518.11	USFWS; MT DEQ; MBMG	2
BIG HORN	3376.35	\$1,350,540.96	\$759,679.29	\$303,871.72	MT DEQ; Crow	2
JUDITH BASIN	1840.56	\$736,224.11	\$414,126.06	\$165,650.42	MBMG; unk	2
FERGUS	1952.90	\$781,160.48	\$439,402.77	\$175,761.11	MBMG; USFWS	2
PETROLEUM	1657.74	\$663,097.48	\$372,992.33	\$149,196.93	MBMG; USFWS	2
SILVER BOW	685.17	\$274,067.54	\$154,162.99	\$61,665.20	DNRC Floodplain Mngmt; MBMG	2
ROSEBUD	345.78	\$138,312.79	\$77,800.94	\$31,120.38	Northern Cheyenne	3
STILLWATER	1354.23	\$541,692.76	\$304,702.18	\$121,880.87	USFS	3
BROADWATER	1207.05	\$482,819.01	\$271,585.69	\$108,634.28	DNRC Floodplain Mngmt	3
GARFIELD	4779.48	\$1,911,793.94	\$1,075,384.09	\$430,153.64	MBMG	3
MEAGHER	2339.00	\$935,599.29	\$526,274.60	\$210,509.84	unk	3
SWEET GRASS	1754.33	\$701,733.88	\$394,725.31	\$157,890.12	DNRC Floodplain Mngmt	3
CARBON	923.81	\$369,523.69	\$207,857.08	\$83,142.83	USFS	3
MINERAL	1112.93	\$445,173.41	\$250,410.04	\$100,164.02	DNRC Trust Lands Forestry	3
WHEATLAND	1261.52	\$504,606.30	\$283,841.05	\$113,536.42		4
GOLDEN VALLEY	1174.12	\$469,649.42	\$264,177.80	\$105,671.12		4
PRAIRIE	1684.82	\$673,926.43	\$379,083.62	\$151,633.45		4
POWELL	521.60	\$208,640.77	\$117,360.43	\$46,944.17		4
TOTALS	46,602	\$18,640,933.98	\$10,485,525.37	<mark>\$4,194,210.15</mark>		
	square miles					

American Rescue Plan Act (ARPA)

https://arpa.mt.gov/



Priorities: NRCS

Priorities: USFS

Priorities: BLM

Priorities: USFWS

Priorities: DNRC

Priorities:

Next Steps

> USGS 3DEP BAA webinar, Wed. 11th at 11p MT <u>Register here [usgs.gov]</u>.

Within the priority areas of interest identified today, identify potential funding partners. Let me know if you can contribute. A signed, goodfaith commitment is needed for the application.

> Preliminary cost estimate (IGCE) by Sept. 3

Submit application October 1

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