

Common Projections in Minnesota

A limited set of projections is commonly used in Minnesota

UTM zone 15 coordinates are most common for statewide data, although parts of the State fall in zones 14 and 16.

Counties in Minnesota most frequently use the Minnesota State Plane Coordinates, appropriate to the three zones in Minnesota, South, Central, and North, with U.S. survey feet being the most commonly used units.

Some cities, mostly in the Metro region, use the County Coordinate System appropriate for the containing county, e.g., St. Paul data are commonly cast in the Ramsey County Coordinate System.

Below are a set of NGS Bench Mark locations and relevant data. A copy of this spreadsheet is also in with the data that you may download from the class website for this week, as well as shape files in various UTM coordinate systems.

Coordinate values are provided in both the relevant UTM and the State Plane coordinate systems, e.g, UTM zone 14, 15, or 16 (indicated by column N, UTMzone), and State Plane Zone S, C, or N (column Q).

Your task is to create a table with all the point coordinate values listed for UTM zone 15, and

Create a second table with all the point coordinate values listed in the Minnesota State Plane Central Zone, in U.S. survey feet.

	A	B	C	D	E	L	M	N	O	P	Q
1	Mark-ID	Name	location	latdd	londd	UTMN	UTME	UTMzon	SPNft	SPesft	SPZone
2	DO4808	6704N	Luverne	43.651270786	96.212831117	4836916.61	724767.77	14.00	573429.43	2039028.82	MN-S
3	ON1297	W386	LaCrescent	43.815394453	91.305968050	4852764.05	636238.77	15.00	637046.89	3335643.54	MN-S
4	AE8990	VETS	StPaul	44.951625433	93.103781972	4977581.86	491813.51	15.00	1040807.50	2856682.74	MN-S
5	DL3948	ALEX	Alexandria	45.892098669	95.383861706	5084822.39	315055.19	15.00	655455.49	2335966.50	MN-C
6	TD0743	S371	Noyes	49.000224639	97.206442883	5429030.55	631181.75	14.00	1266283.55	1639214.90	MN-N
7	TC1276	WINDSOCK	FlagIsland	49.365533042	94.967229225	5469952.74	357172.02	15.00	1378792.62	2179627.43	MN-N
8	SZ0023	1357	GrandPortag	48.001216053	89.585836025	5319671.01	307119.57	16.00	895192.63	3484654.65	MN-N