

## Preliminary SPCS2022 projection parameters and coordinates for Idaho

### Projection parameters for Idaho SPCS2022 zones (designs are preliminary for multiple-zone layer)

Zone code	Zone abbrev	Multiple-zone part of name	Proj type	Axis latitude	Axis longitude east	Axis longitude west	Projection axis scale	Skew azimuth	False northing (m)	False easting (m)
<i>Statewide zone layer</i>										
160001	ID		TM	33°00'N	245°45'E	114°15'W	0.999870		0	4,000,000
<i>Multiple-zone layer (selected); all parameters defined</i>										
161001	ID EN	East North	LCC	43°51'N	247°30'E	112°30'W	1.000240		150,000	150,000
161002	ID ES	East South	TM	41°30'N	247°39'E	112°21'W	1.000210		0	150,000
161003	ID CN	Central North	TM	43°00'N	245°51'E	114°09'W	1.000230		0	150,000
161004	ID CS	Central South	LCC	42°48'N	246°00'E	114°00'W	1.000180		150,000	150,000
161005	ID WNE	West North East	TM	45°45'N	243°26'E	116°34'W	1.000090		0	50,000
161006	ID WNW	West North West	TM	45°30'N	243°15'E	116°45'W	1.000090		0	50,000
161007	ID WCN	West Central North	TM	44°30'N	244°00'E	116°00'W	1.000120		0	100,000
161008	ID WCS	West Central South	TM	43°00'N	243°48'E	116°12'W	1.000190		0	50,000
161009	ID WS	West South	OM	43°15'N	243°54'E	116°06'W	1.000130	-30°	200,000	150,000
<i>Alternate parameters for two zones in multiple-zone layer (not recommended); not all parameters defined</i>										
161004	ID CS	Central South	TM	—	245°42'E	114°18'W	1.000180		—	—
161009	ID WS	West South	TM	—	243°45'E	116°15'W	1.000120		—	—

### Performance statistics for Idaho SPCS2022 zones (designs are preliminary for multiple-zone layer)

Zone code	Zone abbrev	Proj type	Design criteria (ppm)	Within design criteria			Entire zone distortion (ppm)				City and town distortion (ppm)			
				Popu- lation	Cities	Area	Min	Max	Range	Wtd mean	Min	Max	Range	Mean
Statewide zone layer														
160001	ID	TM	±400	99%	98%	85%	-692	472	1163	60	-419	443	862	3
Multiple-zone layer (selected)														
161001	ID EN	LCC	±50	96%	100.0%	77%	-318	46	365	2	-48	20	68	-3
161002	ID ES	TM	±50	98%	91%	61%	-223	81	304	-4	-54	64	118	-2
161003	ID CN	TM	±100	94%	100.0%	53%	-351	116	467	2	-64	69	133	-3
161004	ID CS	LCC	±30	97%	98%	66%	-250	72	322	5	-27	41	69	0
161005	ID WNE	TM	±50	92%	89%	50%	-201	128	329	-7	-46	51	97	-7
161006	ID WNW	TM	±50	91%	90%	57%	-266	76	342	-11	-96	71	168	-8
161007	ID WCN	TM	±75	96%	82%	51%	-295	125	419	-15	-170	61	231	-23
161008	ID WCS	TM	±75	99%	100.0%	54%	-236	194	430	-17	-46	67	113	6
161009	ID WS	OM	±50	99.9%	90%	55%	-252	126	377	10	-129	44	173	4
Alternate parameters for two zones in multiple-zone layer (not recommended)														
161004	ID CS	TM	±75	94%	96%	73%	-369	105	474	-2	-102	71	173	-3
161009	ID WS	TM	±75	99.7%	92%	58%	-291	114	405	5	-153	91	243	-3

## Preliminary SPCS2022 projection parameters and coordinates for Idaho

Coordinates and distortion values for Idaho SPCS2022 zones (designs are preliminary for multiple-zone layer); results are not given for alternate designs

Zone code	Zone abbrev	Approximate bounding projected coordinates (m)				Test point input geodetic coordinates (exact)				Test projected coordinates and distortion		
		Southwest corner		Northeast corner		Latitude	Longitude east	Longitude west	Ellipsoid height (m)	Northing (m)	Easting (m)	Linear distortion (ppm)
		Northing	Easting	Northing	Easting							
Statewide zone layer												
160001	ID	1,001,994	3,752,465	1,781,592	4,234,485	43°36'45"N	243°47'51"E	116°12'09"W	805	1,179,719.2838	3,842,400.7491	49.192
Multiple-zone layer (selected)												
161001	ID EN	87,981	45,605	250,557	265,209	43°49'30"N	248°12'45"E	111°47'15"W	1471	147,468.5457	207,327.6666	9.428
161002	ID ES	55,768	75,985	237,112	255,454	42°52'12"N	247°33'18"E	112°26'42"W	1347	152,211.6656	142,235.6667	-0.503
161003	ID CN	64,482	56,998	300,721	254,063	45°10'30"N	246°06'18"E	113°53'42"W	1188	241,760.0832	170,049.2547	48.672
161004	ID CS	60,402	59,981	283,032	230,232	42°33'45"N	245°32'24"E	114°27'36"W	1122	123,715.1708	112,219.1993	12.584
161005	ID WNE	57,443	58,605	259,020	196,727	47°32'15"N	243°52'57"E	116°07'03"W	684	198,821.1277	83,820.7274	-3.160
161006	ID WNW	40,237	25,768	389,456	103,800	47°40'39"N	243°13'12"E	116°46'48"W	649	242,079.2401	47,747.1194	-11.659
161007	ID WCN	67,877	38,430	241,993	228,203	45°55'30"N	243°52'48"E	116°07'12"W	1020	158,394.7086	90,690.7360	-38.834
161008	ID WCS	65,574	43,639	246,825	167,733	44°54'36"N	243°54'09"E	116°05'51"W	1511	212,268.1480	58,095.9807	-46.090
161009	ID WS	61,324	56,125	424,873	238,126	43°36'45"N	243°47'51"E	116°12'09"W	805	240,284.4940	141,724.3304	5.835