



State Plane Coordinate System of 2022 SPCS2022 Zone Request and Proposal Form

This form is used to establish a single *new* SPCS2022 zone layer in one state (as well as specific U.S. territories and the District of Columbia). All states will have one statewide zone layer and may have up to two additional multiple-zone layers, for a total maximum of three layers. A separate form must be submitted for each layer. NGS will design a statewide zone for every state, but this form can be used to request characteristics for such zones. Files with additional information can be included with this form.

Zone extents must be entirely within a single state. Zone extents that are in more than one state are “special use” zones and require approval of the NGS Director on a case-by-case basis. Contact NGS.SPCS@noaa.gov to make inquiries about establishing special use zones.

Please download and complete the form electronically. Save and email the completed form to NGS.SPCS@noaa.gov (see page 3 for additional guidance). The submittal deadline is **March 31, 2020**.

IMPORTANT: NGS cannot act on this submittal if a conflicting request or proposal is received from any stakeholder group in the same state, territory, or federal district. Unanimous agreement is required.

Refer to SPCS2022 Policy and Procedures for additional information:

<https://geodesy.noaa.gov/INFO/Policy/files/SPCS2022-Policy.pdf>

<https://geodesy.noaa.gov/INFO/Policy/files/SPCS2022-Procedures.pdf>

1. Select the U.S. state, territory, or federal district:

2. Point of contact for stakeholder organizations represented on this form.

Primary (required):
First name Last name

Email address Phone number

Alternate (optional):
First name Last name

Email address Phone number

3. Stakeholder organizations represented (if more than eight, list additional ones in item #10):

1	Iowa Department of Transportation	5	Iowa Geographic Information Council
2	Society of Land Surveyors of Iowa	6	
3	Iowa County Engineers Association	7	
4	Iowa State University	8	

4. Select submittal type:

Default zone request. NGS design of an SPCS2022 zone layer following default procedures (*skip to item #10, or to item #9 if exceptions are requested*).

Request. NGS design of an SPCS2022 **multiple-zone** layer that differs from default per this submittal. *NGS will determine number of zones and extents based on information given on this form. If there is a specific preferred zone layout or other characteristics, please describe in item #8.*

Proposal. Stakeholder intends to design the SPCS2022 **multiple-zone** layer described on this form. *Proposals must be approved by NGS before a submitted layer design will be reviewed.*

Is the intent for this proposed design to replace the NGS default design? Yes No

5. Select linear distortion design criterion for zone system (parts per million):

*Designs with a criterion below ±50 ppm must be designed by stakeholders as part of a **proposal**.*



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6. Select the intended coverage of the state by this zone layer:
A maximum of two multiple-zone layers can exist for a state. Only one multiple-zone layer can provide complete coverage, and only one multiple-zone layer can provide discontinuous (partial) coverage. All zone layers designed by NGS are for complete state coverage.
7. Enter number of zones (can be approximate if actual number not yet known):
Zone size generally decreases as the number of zones increases. Please note the following:
- *For topographic height range of 250 m or less, the minimum zone width is 50 km.*
 - *For topographic height range of more than 250 m, the minimum zone width is 10 km.*
 - *Zones smaller than these minimums require an exception by the NGS Director (see item #9).*
8. Describe the method used for defining zone extents. *Examples include counties (individual, aggregated, or interior subareas), latitude/longitude bounds, topographically defined regions, metropolitan areas, DOT districts, Public Land Survey System townships, American Indian reservations, etc.*

Aggregated counties (99 counties in 14 zones).

9. If exceptions to SPCS2022 Policy and Procedures are requested as part of this submittal, please describe and provide the reason(s). Exceptions for stakeholder designs can also be requested when the designs are submitted. *Note that exceptions are evaluated on a case-by-case basis and are not guaranteed.*

None.

10. Please provide additional relevant information, if any. *Examples include preferences for specifying grid origin (e.g., false northing and easting values, coordinate ranges within the zones), desired limitations to certain projection type(s), additional stakeholder groups, etc.*

Limited to Lambert Conformal Conic and Transverse Mercator projections. Grid origins will be provided with the design submittal.

11. As the primary point of contact for the listed stakeholder groups, I affirm that this submittal accurately represents their wishes for the U.S. state, territory, or federal district identified herein.

Date:



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Additional guidance on completing this form

Download and complete the form electronically using Adobe Reader (version 8 or later) or Acrobat (version 9 or later). Reader is available free of charge at <https://get.adobe.com/reader/otherversions/>.

Deadline of March 31, 2020. The deadline is for including zone designs based on this request or proposal in the initial release of SPCS2022. After the deadline, requests and proposals will be for *modifications* to SPCS2022, and this form will be updated to reflect that change.

Items 1-3. Assumed self-explanatory.

Item 4.

Default zone request. This option can be used for either a default multiple-zone or a statewide zone layer, and some characteristics can be requested (in item #10). NGS will design a statewide zone for every state. NGS will also design a default multiple-zone layer for nearly all states that have two or more SPCS 83 zones, if no consensus request or proposal for a different design is received from state stakeholders. *If stakeholders are satisfied with NGS independently creating default designs, it is **not** necessary to submit this form.* However, submitting this form for default designs will allow NGS to act sooner on finalizing default designs. Otherwise default designs will not be finalized until after the submittal deadline.

Request. Use this option to request NGS design a multiple-zone layer that differs significantly from the default. For example, a state with three SPCS 83 zones corresponding to a distortion design criterion of ± 100 ppm zones could request new zones with a criterion of ± 50 ppm. The resulting number of zones would likely be the width of the state (in km) divided by 180 km (the width corresponding to ± 50 ppm), rounded up to the next highest whole number. This number may vary based on the shape of the state, topographic relief, desired zone configuration, and the orientation of the width dimension, but it should give a reasonably good estimate. Default design are described in SPCS2022 Procedures §6.i.

Proposal. This option is for multiple-zone layers designed by stakeholders, and it also asks whether the design is intended to *replace* the default multiple-zone layer for a state (for states with multiple default zones). See also item #6, which could cause *automatic* replacement of the default layer.

Item 5. If there is a range of distortion criteria for various zones, choose the one most representative for the overall layer. See SPCS2022 Procedures §6.d for details about the distortion design criterion.

Item 6. If a multiple-zone layer designed by stakeholders provides complete state coverage, it will *replace* the default multiple-zone layer, regardless of the replacement option selected under item #4.

Item 7. NGS will evaluate the request to assess whether it meets the minimum width requirements. Note that a width of 50 km perpendicular to the projection axis corresponds to a distortion range of about ± 5 ppm for areas of minimal topographic relief (see Table 2 in the SPCS2022 Procedures).

Items 8-11. Assumed self-explanatory. Files with additional information can be referenced in any of the fillable text boxes.

Examples of completed forms are available at <ftp://www.ngs.noaa.gov/pub/SPCS/ExampleForms/>.

If you have questions about completing this form, please contact NGS.SPCS@noaa.gov.