

**MINUTES OF PUBLIC MEETING OF THE
ARIZONA GEOGRAPHIC INFORMATION COUNCIL
DATA COMMITTEE – State Plane Coordinates 2022 Work Group**

DRAFT

A public meeting of the Arizona Geographic Information Council was convened on November 30, 2018 at 10:00 am at the Arizona State Land Department, 1616 West Adams Street, Phoenix, AZ 85007 in room 215. Present at the meeting were the following members or designees of the AGIC Data Committee:

Table 1: Committee Voting Members

Member	Agency/Company	In Attendance
Jack Avis, Co-chair	Pima County	Yes, phone
Brian Fisher	AZ Geodetic Advisor	Yes, in person
James Covert		Yes, phone
Mike Fondren		Yes, phone
Nathan Gardner	Wilson & Company	Yes, in person
Kent Groh	Santec	Yes, in person
Jenna Leveille	Arizona State Land Department	Yes, in person
Patrick McGarrity	EPS Group, Inc.	Yes, phone
Jim Meyer	AZ Department of Transportation	Yes, phone
Aaron Michalenko	DBE Surveying	Yes, in person
Dave Minton	Maricopa County	Yes, in person
Skip Pomeroy	City of Tucson	Yes, phone

Table 2: Public Members At-Large

Member	Agency/Company	In Attendance
Dennis Harmon	Hoskin Ryan	Yes, in person
Tanner Leavitt	Maricopa County Recorder's Office	Yes, in person
Doug Schneider	Rick Engineering	Yes, phone
Nikolas Smilovsky	Arizona State University	Yes, phone

- I. **Call to order:** Meeting was called to order at 10:02 am; Introductions were made by the committee; around the table and on the phone, ensuring attendance list was managed and quorum established.
- II. **General meeting guidelines & Open Meeting Law:** Jenna Leveille went over general guidelines about Open Meeting Law and member status. Voting member status is declared by each member. The primary difference between a voting and public member is an attendance commitment; voting members are required to attend 75% of all scheduled meeting in order to establish a quorum. Everyone on the group distribution list will receive all meeting notices and group communications. She asked

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that the group contact her if any status changes need to be made.

- III. **Nominations and Co-chair Vote:** Jenna Leveille reported that the group has two volunteers for Co-chair positions, Jack Avis and Brian Fisher. Jack is the APLS representative to AGIC and Brian is the NGS State Geodetic Coordinator for Arizona. She asked for any additional volunteers and there were none. Jenna asked for a motion to approve Jack and Brian as the AGIC SPCS2022 WG Co-chairs. Dave Minton motioned, and Nathan Gardner seconded. The motion passed unanimously.
- IV. **Workgroup Purpose and Goal Review:** Brian Fisher reviewed the developed work group goals that established this group as a subcommittee to the AGIC Data Committee. The primary purpose is to organize Arizona stakeholders, so they may communicate with a unified voice regarding the National Geodetic Survey design team proposed redesign of Arizona State Plane Coordinate Systems. The group will also advise the Arizona State Land Commissioner and other state agencies about potential proposals for State Statute updates for the Arizona State Plane Coordinate System. There are two identified goals of this group:
- Respond to the Federal Registry Notice by Aug 15, 2018
 - Prepare for the proposed Dec 2019 deadline

The first goal is complete. A response was generated by AGIC and APLS. Brian showed/reviewed the response submitted to the group and Jenna will send a copy to all AGIC SPCS2022 participants. The second goal will be accomplished by this group after NGS publishes their guidelines (anticipated early 2019). This will incorporate any special requests for Arizona stakeholders; i.e. special purpose zones, statewide projection, etc.

- V. **Review of NGS 2022 Plan:** Brian Fisher gave background information on why the State Plane Coordinate System is changing. There will be a complete redefinition of all aspects of geodesy – all new datums; both horizontal and vertical (new geometric ‘GPS/CORS’ control and new geoid based vertical datum). This is based on the availability of new tools (namely GPS) and models that offer a more precise/accurate spatial data model.
- VI. **NGS Default SPCS option v. State agreed recommendation (expansion of what the State role can be):** Brian stressed to the group that the only choice Arizona has is between a default approach or a state unified recommendation of proposed changes. If Arizona’s stakeholders are not unified, Arizona will likely receive the default projection of a three-zone approach. Additional technical and historical information can be gleaned from Michael Dennis’ NGS webinars. Jenna will distribute links for these to the group.
- Outreach to AZ stakeholders to inventory what coordinate system approaches are currently in use (i.e. using AZC as a state-wide zone);

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modifying SPCS to match 'ground'; use of LDP systems, etc.): Brian continued the discussion focusing on how best to prepare for the NGS response. The discussion included:

Statewide zone is an example of a special use zone and is common for modification of a base projection for many uses. Brian would like to get input on current projection uses so that recommendations may incorporate special uses for all needs. Discussion on additional examples: Low distortion specialized projections; regional modifications. Need assistance to put together a comprehensive list of all coordinate uses.

How would we want to start the list? Brian will send a list of the known systems to be sent out to the group. Jim suggested a survey to reach more people. Group agrees. Jenna will help facilitate survey approach.

- Current LDP coordinate systems in AZ & advantage of them being included as SPCS zone

The group discussed current Low Distortion Projections; the associated issues & impacts.

Will there be guidance on best practices, uses and zone lines? State mandates?

OMB Circular A-16 (<https://www.fgdc.gov/policyandplanning/a-16/index.html>) is the mandate for federal entities. These are recommendations rather than a mandate for state uses; Arizona does have a state statute which does not mandate use.

There was a question on zone boundaries & coverage - Will these be defined by this group? We, as a group, will determine how we approach recommendations. A layered approach is one method; Brian used the Counties & Navajo nation as examples for the need for special purpose zone.

There are transformation tools available; NGS is producing software suite to deal with transformations. Brian noted that proper transformation is able to be done without denigration of data. Official sanctioned zones will come with official sanctioned transformation tools.

Jack Avis added that ideally this group will address any coordinates sanctioned by the State. How do we know which to use? We need to wait for guidelines to have a complete discussion on what will work best for AZ & what this group will propose.

- VII. Mechanics of the new SPCS:** Brian led a discussion on the anticipated NGS Policy due to be released in January 2019. The state response will need to be tabled until this is released.

**MINUTES OF PUBLIC MEETING OF THE
ARIZONA GEOGRAPHIC INFORMATION COUNCIL
DATA COMMITTEE – State Plane Coordinates 2022 Work Group**

- Selection of linear unit and outreach efforts to other States

The discussion continued regarding response considerations, such as official linear unit. Presently Arizona is an international foot state; this is a minority in the country. Brian has started outreach to adjoining states to see what they are planning; US survey ft or International ft. He noted that many software packages don't recognize international feet. There are problems with transformations because of the international foot distinction. Brian will report to the group what his survey results and recommendations are on linear units for Arizona.

- Design software. NGS will only support a 'default' approach for design of new SPCS. States will need to pay for their own development tools (discuss outreach to other States to partner on LDP design software).

NGS will only commit resources to default approach; they are not creating special purpose zones. They may allow a state to produce and submit their own designs for review, but we will have to pay for it as a state; potential for cost sharing. LDP software may be available from a previous company Michael Dennis created. Brian is willing to design Arizona LDP's if the tools are available free of charge.

Grants available? NGS does not have money to provide software for individual state design; \$40,000 for turning on the mentioned software for a year (Brian is working on outreach that potentially may share the cost). Doug Schneider is willing to help with outreach.

- VIII. Arizona Revised Statute: What they are currently and how they will be impacted:** The changes in SPCS will necessitate statute changes. Brian proposed that this topic be tabled until we understand the proposed changes. Jenna will reach out to ASLD policy advisors to find out what the process requires.
- IX. Call to the Public:** None
- X. Information or Topics for Future Meetings:** Next meeting date will be set after NGS policy is released. General meeting dates and formalized goals for 2019 are required for February AGIC Council meeting. Brian will work with Jenna to establish these.
- XI. Adjourn:** Adjourned at 11:00 am