MICRC

08/06/21 9:00 am Meeting
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>> VICE CHAIR SZETELA: Good morning. As Vice Chair of the Commission, I call this meeting of the Michigan Independent Citizens Redistricting Commission to order at 9:05 a.m.

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This meeting is also being recorded and will be available at www.Michigan.gov/MICRC for viewing at a later date and is being transcribed and those transcriptions will be made available And posted on Michigan.gov/MICRC along with the written public comment submissions.

There is a comment portal that may be accessed by visiting Michigan.gov/MICRC, this portal can be utilized to post maps and comments which can be viewed by Both the Commission and the public.

Members of the media who may have questions before, during or after the meeting should direct those questions to Edward Woods III, our Communications and Outreach Director for the Commission. WoodsE3@Michigan.gov. 517-331-6309.

For the purpose of the public watching and the public record, I will now turn the Michigan Department state Staff to take note of the Commissioners present.

- >> MS. SARAH REINHARDT: Good morning, Commissioners. Please say present when I call your name. If you are attending the meeting remotely and unless absence is due to military duty disclose your physical location stating the county, city, township, or village where you are attending the meeting remotely. I'll start with Doug Clark.
 - >> COMMISSIONER CLARK: Present.
 - >> MS. SARAH REINHARDT: Juanita Curry.
 - >> COMMISSIONER CURRY: Present.

- >> MS. SARAH REINHARDT: Anthony Eid?
- >> COMMISSIONER EID: Present.
- >> MS. SARAH REINHARDT: Rhonda Lange?
- >> COMMISSIONER LANGE: Present, attending remotely from

Reed City, Michigan.

- >> MS. SARAH REINHARDT: Steve Lett?
- >> COMMISSIONER LETT: Present.
- >> MS. SARAH REINHARDT: Cynthia Orton?
- >> COMMISSIONER ORTON: Present.
- >> MS. SARAH REINHARDT: MC Rothhorn?
- >> COMMISSIONER ROTHHORN: Present.
- >> MS. SARAH REINHARDT: Rebecca Szetela?
- >> VICE CHAIR SZETELA: Present.
- >> MS. SARAH REINHARDT: Janice Vallette?
- >> COMMISSIONER VALLETTE: Present.
- >> MS. SARAH REINHARDT: Erin Wagner?
- >> COMMISSIONER WAGNER: Present; attending remotely from

Charlotte, Michigan.

- >> MS. SARAH REINHARDT: Richard Weiss?
- >> COMMISSIONER WEISS: Present.
- >> MS. SARAH REINHARDT: Dustin Witjes?
- >> COMMISSIONER WITJES: Present.
- >> MS. SARAH REINHARDT: 12 Commissioners are present and there is a quorum.
- >> CHAIR KELLOM: Thank you, Ms. Reinhardt you can view at www.Michigan.gov/MICRC.

I will now entertain a motion to approve the meeting agenda.

- >> COMMISSIONER WITJES: So moved.
- >> VICE CHAIR SZETELA: Motion made by Commissioner Witjes.
- >> COMMISSIONER EID: Second.
- >> VICE CHAIR SZETELA: Seconded by Commissioner Eid. Is there any discussion or debate on the motion? Hearing none we will -- it is moved and seconded that we adopt the meeting agenda. All in favor please raise your hand and say aye.
 - >> Aye.
 - >> VICE CHAIR SZETELA: Opposed raise your hand and say nay.

The ayes prevail and the motion is adopted.

Without objection, we will now begin the public comment pertaining to agenda topics portion of our meeting. Hearing no objection, we will now proceed with the public comment pertaining to agenda topics.

Do we have any in-person, live remote comments this morning, Ms. Reinhardt?

>> MS. SARAH REINHARDT: We do not.

- >> VICE CHAIR SZETELA: Do we have remote?
- >> MS. SARAH REINHARDT: We have one remote public comment participant.
- >> VICE CHAIR SZETELA: Individuals who have signed up and indicated that they would like to provide live remote commentary to the Commission will now be allowed to do so. I will call your name and the staff will unmute you.

If you are on a computer, you will be prompted by the Zoom app to unmute and speak. If you are on the phone, a voice will say the host would like could to speak and prompt you to press star six to unmute. And I will also call on you by name.

Please note that if you experience technical or audio issues or if we do not hear from you 3-5 seconds, we will move to the next person online and return to you after they are done speaking. If your audio still does not work, you can e-mail us at redistricting@Michigan.gov and we will help you troubleshoot so you can participate during the next public comment period, at a later date or hearing.

You will have two minutes to address the Commission. Please conclude your remarks when you hear the timer. The first in line to provide public comment is Mr. James Gallant. Please allow a moment for our staff to unmute you.

- >> Permission to speak, Madam Chair?
- >> VICE CHAIR SZETELA: Go ahead, Mr. Gallant.
- >> Thank you. My name is James Gallant. I'm with the Marquette County Suicide Prevention Coalition. These are my opinions.

[Pledge of Allegiance]

That is what this is all about.

You know, I'd like to direct all people, concerned people everywhere in the whole world what is going on here.

We have a Constitution of the United States, a couple hundred years old and working on that still, still going strong.

And here we sit with this Commission, Independent Redistricting Commission, I believe is trying to reset the Constitution.

And circumvent the Constitution the way that it is now, majority vote rules that is it. You got more than 50% plus one.

You know, Commissioner Witjes should consider that.

It's got to be 50% plus one.

So the whole idea here is I'd like to direct you to your rules of procedure.

I've been looking on Internet. It's called the People's Foundation, Andrew Shue, and working with Arnold Schwarzenegger. All across the country and they are looking to reset the rules, reboot the system.

So how this is happening I believe that Commissioner Lett has introduced proposed bylaws.

Not proposed bylaws, proposed rules of procedure, right, back in February.

But if you look at the form, they are in the form of bylaws, Article one, two and three. We have Article one and two. We have two constitutions like that. And now Commissioner Lett is trying to introduce and reset the rules and now we have a new process.

No, not new process, new people doing it, people watching you, that is the new process.

So I did sign up for a second public comment and I think it's inappropriate to interrupt me in between here.

And, you know, we are going to have to -- I'm still asking to get a parliamentarian, request a real parliamentarian to understand the Rules of Procedure. I don't believe your colleague, the Vice Chair, Commissioner, Szetela really understand the rules here. She has a working knowledge of Roberts Rules, yeah, what she has been told by Commissioner Lett and the attorney. But not actually reading the book and the personal knowledge of the book and rules. And she will maybe go by don't know what, I don't know but do you know what in Court.

>> VICE CHAIR SZETELA: Thank you for addressing the Commission. That concludes our public comment for this morning.

Without objection, I'd like to move on to unfinished business item five.

I'd like to ask Executive Director Hammersmith to provide information to the Commission on request for more frequent meetings.

Hearing no objection, please proceed, Ms. Hammersmith.

Please proceed Director Hammersmith.

>> MS. SUANN HAMMERSMITH: Thank you.

There was some discussion yesterday about how many days a week we needed to meet.

So Edward started to draft a schedule, Julianne and I weighed in. Sarah weighed in. Kim has weighed in a little bit. But presented today is a very, very rough draft of what a schedule might look like going forward, for you to think about.

You will have something that has a schedule that would be more refined, that will come to you next week from staff.

Also, there will be some more information on incorporating the process.

That was developed and other processes that the Commission may use so there will be some options for how to move forward.

And I know we did have a request for what would it cost if we met five days a week instead of three days a week.

I don't believe that we can anticipate having MDOS staff serve us five days a week because we are not their full time jobs.

They have other work that they need to do for the Secretary of State.

But roughly it's about \$10,000 a meeting.

So for every day you add you would add about \$10,000 to the budget.

So just to think about that a little bit.

Sarah, I would like to weigh in briefly on MDOS capacity and costs.

>> MS. SARAH REINHARDT: Thank you, Executive Director Hammersmith.

This is Sarah Reinhardt with the Michigan Department of State.

Yes, I just wanted to weigh in on the proposed five days a week schedule.

As Commissioners remember, we've had initial discussions about scheduling and hours required to complete the mapping work and with input from your mapping consultant we arrived at some estimated hours that would be required for you to do the important work that you have in front of you.

As a reminder during those conversations we alluded to MDOS staff capacity to assist during meetings.

While we recognize that certainly the Commission needs time to do the important work that you have in front of you, a five day per week schedule might not be possible for MDOS to facilitate.

We would certainly make best efforts.

However, as we mentioned before, while the work with the Commission is absolutely a priority for our department and for our staff, we do have other responsibilities that we need to tend to so a five days a week schedule would require 100% of our time which while we are very dedicated to you all may not be feasible.

And in addition to that, I wanted to speak to the space requirements.

Right now we are using state facilities for no fee to help lower costs for the Commission budget.

We are definitely experiencing a low supply and very high demand for state space across state Government which means that it is difficult to come by space.

We take what's available, that meets the Commission's needs but often it's very difficult to find it.

So increasing schedule to five days a week would necessitate the use of paid space in addition to state space.

I think what we could continue doing is reserving at least up to two days a week. Ideally for state space and the remaining three days were it to move to a five day schedule would require paid space and that's all I have for you all.

I will hand it back over to Executive Director Hammersmith.

>> MS. SUANN HAMMERSMITH: Thank you.

And then as we discussed we probably need to get a cadence for how we are going to map together how the work will proceed, can we do four or five Senate districts in one setting, et cetera.

So, again, if we start in this manner at three days a week as we have scheduled, I think that makes sense.

If we see we are getting way behind, then we will have to talk about working smarter, working harder, adding hours to meetings, you know, would an extra hour make a difference, et cetera.

So I think this will help us get started.

But, again, nothing that we want -- certainly want to adopt today.

It was just to put something on the table so you could kind of look at what the schedule might be going forward.

- >> VICE CHAIR SZETELA: Commissioner Rothhorn?
- >> COMMISSIONER ROTHHORN: Super helpful, much appreciated. Thank you for this work. And I asked for this because I was trying to figure out how we would approve the October 4 or the question that was proposed yesterday.

When do we start our public hearing schedule so I think this helps us understand when we start it.

Can you speak to I think you mentioned that we have process that we've committed to. I think you are speaking to the flow chart right that we've talked about? And I think so would you speak to that and one of the things in the flow chart we talk about is that we the Commission would select the regions but you have some proposed regions could you speak to why these are proposed, please?

>> MS. SUANN HAMMERSMITH: Yes, some of those meetings are already scheduled.

So for example, when we are in Ann Arbor it doesn't make sense to talk about the UP. We should talk about the District that we are in.

So it's not a perfect world.

It's going to be some moving around.

But, again, if we have a meeting in a certain area, it makes more sense to talk about that area, so that is why these were chosen.

And for example on August 19th we've got Wood TV coming from Grand Rapids. We know.

So it makes more sense to talk about the District in the west.

And then also we have been discussing, and Edward has proposed that the public hearings kind of ignore the west side of the state.

So bumped in the public hearings are additional locations for Cadillac and Kalamazoo that the Commission can consider and decide whether that is important, or not.

And it's just laid on the table for your information at this point.

Next week I don't believe we are going to have any mappers.

When the PL data comes out Kim is busy.

So we need him to be working on his end.

Getting the reports and the data tables ready.

We also have a software update from DTMB that needs to be downloaded on all the Commissioner's computers just like we did last week with the software.

So that's coming through.

And I would propose also that your homework would be to look at all the public comment and all the maps that would be from the west and the southwest regions that you've developed.

And by Thursday, August 19th, then you would be ready to discuss those.

The other thing that Kim will be doing is getting the communities of interest from Moon on the maps so those can be considered.

Because those are such a high priority.

So that's kind of the overall thought, vision for moving forward.

But, again, it's a work in progress.

We welcome your input and thoughts and we will have a full discussion next week then on this.

Adding in some process, utilizing the flow chart, et cetera.

- >> VICE CHAIR SZETELA: Commissioner Lange?
- >> COMMISSIONER LANGE: I don't have a question, I just have a comment.

You know, I thought overnight last night about what Dustin said.

And I have to say that I agree with what he stated yesterday.

About this being the most important aspect of what we're doing.

And it is going to be the most time constraining of what we are doing.

It's going to take the most time.

And I think we should be proactive and not wait to see if we need more time.

I think we should get things lined up and scheduled meeting wise and then if we don't need those meetings cancel them.

As far as budget wise, this is the most important aspect of our job.

And that's what the budget should be spent on.

So those are my thoughts.

I would rather take a proactive approach, schedule more time, whatever it needs to be, whether it's extended on three days a week or whether it's four or five days a week, whatever we can coordinate with MDOS but I think it would be better if we took a proactive rather than wait to the last-minute and that would also allow vendors and Commissioners to coordinate that in their everyday schedules so just my thoughts on this situation.

Thank you.

>> VICE CHAIR SZETELA: Thank you, Commissioner Lange.

Are there any other comment or discussions regarding this topic? Go ahead, Ms. Reinhardt.

>> MS. SARAH REINHARDT: Yes, this is Sarah Reinhardt with the Michigan Department of State.

Appreciate the input from Commissioner Lange and Commissioner Witjes.

One thing I wanted to point out during yesterday's meeting Commissioner Witjes I believe you said we would be meeting two days a week.

Beginning the last week of August I just wanted to point out that meetings will actually progress to three days a week.

So the third day that we will be meeting is every Thursday, now those are travel meetings but those are not hearings, those are actually meetings you will be doing mapping work.

And utilizing that time.

So in September or actually the last week of August meeting times will escalate to three days a week.

- >> VICE CHAIR SZETELA: Go ahead Commissioner Rothhorn?
- >> COMMISSIONER ROTHHORN: Thanks and I want to acknowledge too that we have a schedule that has been sort of vetted by our consultants saying so yeah, we believe this is the number of hours right that we need.

We are just trying to schedule it right and I think we have got to I'm saying this mostly for myself but that flow chart is an important part of our process, how we will actually make these decisions in these meetings and if EDS has understood the flow chart too and software can integrate that process we will be able to get this done in the amount of time and it seems like it's the schedule, right, the calendar that allows us to set things up so we are meeting people live and talking about things live and that, so yeah, I don't want to talk about it anymore today.

What I mean to say I understood we want to talk about this tomorrow but I just want to make sure we recognize that we are adding details and I think integrating and so much of this relies on software and technology and we don't have so much understanding of it.

But it is our process and we have a flow chart that we've agreed on that I think will help us understand how we translate that into right this schedule that is proposed and we will talk about next week.

So thank you again.

>> VICE CHAIR SZETELA: Executive -- Director Edward Woods.

I need more coffee this morning.

>> MR. EDWARD WOODS: I know, Sue. And I look a lot like and changed from a biblical reference but just want to reiterate some of the comments from yesterday.

As relates to planning for these public hearings.

It also talks about on boarding our contractors.

So there is a process that we will be building off of the Commission's decision.

So I really want to thank Sue for shepherding this through.

But I can't stress you know the more time we have to plan, the better.

And when we went through our first public hearing you know process, identifying things we are a little bit under the gun but we got through it.

But this one we expect to be a little bit more intense because it will actually be seeing maps for consideration.

I also want to reiterate that just because we are in a particular area doesn't mean they only have the right to speak to those maps.

They can speak to any District they want to speak to because it's a public hearing. So Detroit is just as much on the table as the UP as UP is just as much on the table as Detroit.

So as you are contemplating and going through the process, of deliberating in terms of the schedule, just please make sure we have ample time to plan and ramp up and it's not just for the public hearings.

It's also with regards to what you're going to address at the meetings.

And that would approximately give us less than two weeks and so we really would like to get that out so that we can honor our core values of transparency that we have at our strategic plan as well as in our communications plan.

Because I've gotten several press inquiries as well as partners.

We want to get the word out for our region so we can make sure people are engaged because now people are starting to pay attention.

We have moved the needle a little bit on increased awareness and starting to increase awareness even more.

But I think the critical thing is letting people know when their region is going to be discussed so it's not just about the public hearings and the planning and what have you. But it's also about the meetings that we have and the regions that we are going to discuss so they can have input.

Because there is a belief that you know we keep telling people we will receive public input all the way to the last day, which is true.

But there is also belief that the earlier you get your public input the better.

And having that schedule when you're talking about the regions would go a long way. So as you contemplate and deliberate, please keep that in mind, thank you very much.

>> VICE CHAIR SZETELA: Thank you, Director Woods.

All right. I would like to note for the public record our Chair, Brittini Kellom, has arrived at the meeting I will hand over the mic to her when she has a few minutes to set up.

At this point we will move on to new business 6A, I would like to, I'm sorry, 6A1, prepare to begin mapping. Without objection, I would ask Dr. Lisa Handley to share information on partisan fairness measures.

Hearing no objections, please proceed, Dr. Handley.

>> LISA HANDLEY: It's a pleasure to be here, we have only met via video and here I am and looking forward to being able to interact with you personally today any way. What I want to do is just spend about 15 minutes recapping some of what I talked about I guess it was a couple of weeks ago now on political fairness.

Basically I want to go in to how we are going to actually get these measures.

But first I want to spend just a couple minutes talking about my own experience.

I have spent a good part of my career studying and writing about redistricting practices around the world.

I've also been to dozens of countries, mostly under the auspices of the U.N. doing redistricting work.

And I can tell you that the United States is the only consolidated democracy that relies on single member districts to elect their representatives that actually lets politicians do the job.

Most countries have moved away from this.

They have done it to get the partisan bias, the intentional partisan bias out of the system.

And I have advocated for doing this in the United States for a very long time.

And so I'm very excited to see Michigan Commission Redistricting Commission up and running because I think we are finally 60 years behind the rest of the consolidated democracies.

But we are moving in that direction.

And I hope that this is a success and I hope that I can help you make it a success.

Now, I mentioned that moving to an independent, nonpartisan or bipartisan

Redistricting Commission takes the intentional bias, political bias out of the system.

But any time you draw lines, wherever you put the lines has political consequences.

The only question is, you know, are they intentional or not intentional.

And so we have to pay attention where we put these lines to see what the political consequences are.

So how are we going to do that? I've described three measures.

There are many more measures than the three measures I've described.

But these measures rely on looking at political behavior.

In particular looking at election returns.

So we're going to look at previous elections and we are going to see what those elections would look like under any sort of draft boundaries.

So let me see if I can figure out how to do this.

Okay here is our redistricting criteria priority pyramid that I did because Kim talks about cubes.

I wanted to talk about pyramids.

And I wanted to note how important it is that we look at the draft plans that you've put forward to make sure that one of the parties is not disadvantaged relative to the other party based on these.

And it specifically says that you are going to use accepted political measures to do this. Okay, so.

How do we take election results and figure out how your boundaries affect the election results.

Again, we are going to go back and in the partisan gerrymandering suit you are challenging specific districts that exist, elections occurred under those districts so you can talk about what the election results are under those districts.

That's not going to be the case here.

Here, you're going to have proposed lines and you're going to need a way to determine what would happen under those lines.

So we're going to use previous election results and we are going to reconfigure those election results to determine what would happen if that election had occurred under the boundaries that you are putting forward.

So here are six precincts.

And I've got the election results for those precincts.

I'll have to bring it up.

I can't see that.

Okay, so I've got six precincts and you can see we've got votes for candidate A and candidate B in those six precincts, they are shown up there for a total of, I think there is something like 1500 votes cast.

This is our sixth precinct and the first thing we are going to do is we are going to draw some boundaries and we are going to see what happens.

So at this time we have been on a nice, straight line and put three precincts on one side and three on the other and in this plan under these two districts when I recalculate the election results, what I find is that under this configuration candidate A wins the first District.

The District on the left.

And candidate B wins the District on the right.

So this is a previous election.

We've reconfigured it to see what would happen to those two candidates in these two districts if that election had occurred under these configurations, under this configuration.

So here is another example.

So here I've drawn the line.

Three precincts on the north.

Three precincts on the south.

And I've recalculated the election results.

And you can see that this time candidate A wins the northern District.

Candidate B wins the southern District.

No, that's not right.

It should be candidate B wins both districts.

Sorry about that.

It says A59.3, it's B.

So I've just changed the boundaries slightly but this time candidate B wins both contests.

Still nice compact districts, equal in population but now candidate B wins both of them.

Now it gets a little trickier when I decide I'm going to divide precincts.

So now I can -- we know our totals on four of the precincts but two of the precincts have now been divided and we've got to figure out how we are going to calculate how candidates A and B would have done with divided precincts.

And that's I think that Kim has talked to you a little bit about this.

So we're going to look at the precinct on the left, that's been divided by the boundary.

And we are going to reconfigure the election results.

Okay, so there are six blocks in this precinct.

And there are 200 voters in this precinct.

And the number above the parentheses is the number of voters who are in that block.

Kim is geo coding and Kim you need to correct me, Kim is geo coding this so you actually know the number of voters in each block in this precinct.

So we are going to allocate candidate A and candidate B's votes to these blocks based on the proportion that block is of the number of voters in the whole precinct.

So, for example, you see in the bottom right hand corner, small letter ABC.

So in block A we know there are 55 voters.

That's 25% of the total population.

So I'm going to allocate 25% of candidate A's votes and 25% of candidate B's votes to block A.

And I'm going to do that throughout.

Now, this might not actually be how the votes fell out.

But this is our approximation of how the votes fell out.

And it's going to -- we are going to do that for every precinct that is divided.

Now, we are going to allocate the votes down to the block level.

But so long as the precinct isn't divided you have an exact count of how the election occurred.

It's only when a precinct is divided, we move to the estimation procedure.

This is so how we can figure out exactly how okay, so this is how we are going to figure out how this looks when we reallocate them.

So I'm going to leave it to you to figure out what happens to candidate A and B under this process.

And I'm going to bring this back up on break so you can take a look at what happens if we draw the districts this way.

But this is basically what the machine is going to be able or the redistricting software will do this for you automatically, every time that you look at an election.

You will pick the election that you want to see recompiled.

You're going to have to pick a statewide election because things like Congressional elections don't cover the whole state and you could possibly be drawing a

Congressional District that goes outside of a previous Congressional District.

So you're going to choose some statewide elections.

And you're going to recompile them.

Well, the software is going to recompile them for you.

So you can see how your candidates did in each of these elections.

So this is how the three measures that I chose worked.

I want to go back and tell you why I chose the three measures that I did.

The first reason is they are easy to understand.

When you look at the score, you know the direction and the magnitude of the partisan bias.

It's straightforward to calculate.

You can do this with your calculator.

You can even do it in your head.

If you use a simple example like the one that I've done here.

So it's straightforward to calculate.

It's easy to incorporate into a redistricting software.

My belief is that when you get the updated software you will have this package.

You will have this included.

You will be able to run reports automatically, say I want to look at these recompiled elections for these particular statewide offices.

And you will get a report that will tell you how those candidates did in each of those districts.

And finally the particular three measures that I pointed to, that I've discussed have been accepted by Federal and state courts.

And I think that you're going to hear from Bruce at some point and your attorney here about what the courts have had to say about this.

And then just real quickly, first thing you're going to do, you're going to get your -you're going to choose your election or your series of elections.

You probably want to choose more than one statewide election and you will run the report and it will tell you based on the boundaries you drew you will be able to compare the seats to the votes.

You will know what the statewide vote is and you will see how many seats each party gains in that particular election.

This allow you to do the lopsided margins test that we talked about.

As well as the mean median difference test that we talked about.

And the efficiency gap.

Now, these three measures measure slightly different things.

I think you should be using all three of those measures.

You might even consider using some other measures if you want to bring in another expert to help you with this.

But these three measures should be automatic.

You should be able to press a button and say I want this plan analyzed using these elections.

And that's all I have to say.

I would be happy to answer any questions you might have.

- >> VICE CHAIR SZETELA:
- >> CHAIR KELLOM: Director Hammersmith?
- >> MS. SUANN HAMMERSMITH: So I like your comment that should be automatic.

So I just want to confirm with Kim that these measures can be built into the existing software so they indeed are automatic.

>> KIM BRACE: Yes, they are being done.

In fact, it will be even more automatic than what Lisa said.

Because what you will have if you remember on your screen, you've got total population, you've got racial population.

You've got different ACS and ESRY right now, all those different tabs.

Well we will be adding additional tabs that have the election results.

And so as you draw, you will see those election results change.

As you, you know, move the District going this way, it will change.

If you move the District going that way it will change.

So you'll actually see immediately what the political impact of your District drawing is going to do using these recompiled election results that Lisa had talked about.

Now, we will also be putting in the reports like what she has been talking about too and we've been working with Fred to generate those.

So those are the kinds of reports that, yes, you can when you finish your plan or you think you want to see, you can hit that and it will generate reports off of that.

But more importantly, you'll see it as you're drawing.

Depending upon looking at the various tabs that you'll have because it's all recompiled election results like what Lisa was talking about.

So that you will end up seeing this immediately.

>> DR. LISA HANDLEY: You will see recompiled election results what you won't see without hitting the report button is things like in the mean median difference so you do need to run reports to do that.

But you know running your report in the software is very, very easy but you're not going to do it every time you move a District boundary.

>> CHAIR KELLOM: Go ahead and jump in and Commissioner Rothhorn if you have a question.

>> Some of the stuff you are seeing up here this aggregation of votes down to the block level and then it's reaggregated as you draw the plan, that goes back, we did that in 1990.

The efficiency gap is fairly new in relation to correct.

But some of the -- we did that in Virginia in 1990.

It's not new.

It's not magic.

It's across the board, standard process now in redistricting.

- >> CHAIR KELLOM: Commissioner Orton?
- >> COMMISSIONER ORTON: So I understand that the totals will change as we move things around.

We have a target number of population that we need in each District, are we going to have a target to know what we need to reach as far as partisan?

>> DR. LISA HANDLEY: No, you're not.

What you're going to be able to do is compare the plans that you produce to each other, to previous plans, to plans across the country because there are websites that give this to you, so you will have an idea of say for example you calculate, you produce a plan and you get an efficiency gap of 21.3%.

That's really high.

You're going to want to get it much further down.

But there is no bright line.

And you don't need it at zero.

But 21.3 is too high.

5% is probably okay.

But no bright lines I'm afraid.

- >> CHAIR KELLOM: Go ahead Commissioner Clark?
- >> COMMISSIONER CLARK: 21.3% is too high, what is the acceptable tolerance?
- >> DR. LISA HANDLEY: There isn't one.

I can tell you that when the courts have looked at this and decided that something was a partisan gerrymander in part because of an impact like that, the numbers were more like 21.3%.

And were not like 3 or 4%.

But the courts are the ones that are going to guide us on this.

Also I will say is there is a website that looks at all of the plans that have been put into place in the last 30 or 40 years.

And you can compare your scores to those scores and see if you're an out liar and if you're an out liar you are going to think again about the plan you are putting forward but no bright lines, I'm afraid.

>> KIM BRACE: But what you do have as Lisa says you have this long history of what calculations have been.

So looking at that history as it relates to Michigan, for example, you will be able to compare what you're drawing today to what has been enacted in previous decades. And that could be some guidance to you of what -- where you stand in today's world compared to where the politicians did in previous times.

>> DR. LISA HANDLEY: The efficiency gap is new.

It was just developed about five years ago but political scientists have sat around and looked at every legislative and Congressional plan.

In the last 40, 50 years and assigned scores to them, so they are there for you.

- >> COMMISSIONER ROTHHORN: One of the things we played with I know in my head too is idea of proportionality and statewide votes do we use this in order to understand proportionality we have to extrapolate, correct?
- >> DR. LISA HANDLEY: So you're going to start by looking at something like the seats vote ratio.

But you have a single member District system here and proportionality first of all is nearly impossible to obtain in a single member District situation.

On top of that, the courts have said this is not the goal.

We don't have to produce proportionality.

However, this example that I gave you here, let me see if I can find it, and just hope that it does, okay, here the party that gets a majority of the votes does not get a majority of the seats.

That's a little hard to do.

That's usually suggesting that there is a gerrymander occurring here.

What you usually see is the party who gets majority of the votes gets more than a majority of the seats.

So a party who gets 50.7% of the votes you would expect them to get 60% of the seats.

>> COMMISSIONER ROTHHORN: I think my struggle is and I think I heard what you said, the courts have decided it's not the goal.

I get the feeling that the people want it.

So I'm struggling to try to see if there is a way to reconcile this or is it really just, we have to choose one or the other? Can we do a both and?

>> DR. LISA HANDLEY: Absolutely.

This is something that you personally want to try to achieve.

You can try and achieve it.

It's difficult with single member districts.

And so don't beat yourself over the head if you can't do it.

But the courts haven't said that you can't attempt to do it.

>> KIM BRACE: The thing to keep in mind is that you do have different patterns of voting behavior here in the State of Michigan.

You know, Detroit is going to vote differently than UP.

Than Saginaw than any place else.

As part of what I was talking about earlier, is that things are very localized and your need is to understand those differences at that local level.

That's why starting to take a look at the communities of interest that people have been talking about, all of those kind of things also come into play.

But ultimately looking at the election results when we get them in there and seeing how they change across the state, change across the different offices and change according to time.

Because we will have data going back to 2014.

So you will have 2014, 2016, 2018, and 2020 so that you'll see this progression of what has happened in the state.

And that's something that you can take into account.

You can acknowledge.

You can even cite to if you want to in terms of, you know, the plan that you have worked on, that you have created, you have drafted yourself or something.

You can start taking a look at these trends and say this is what I think is happening in the state.

And that's why I'm drawing it this way.

That's a way of explaining using more data.

You're going to do that in terms of population.

You're going to do that in terms of race.

And you're going to do that in terms of politics on that side.

- >> COMMISSIONER ROTHHORN: Thank you.
- >> COMMISSIONER EID: Thank you Dr. Handley it's nice to see you in person rather than on Zoom I'm glad we can all be together right now.

That website you were referring to earlier I believe it's plan score.org.

- >> DR. LISA HANDLEY: That's correct.
- >> COMMISSIONER EID: That is a website you would recommend.
- >> DR. LISA HANDLEY: It's on a previous slide of mine so yes.
- >> COMMISSIONER EID: You would vouch for this website's reliability as far as the data goes.
- >> DR. LISA HANDLEY: Yes, it's all automatic so you will be able to tell where your scores come in based on those sites, yes.

So this is a mathematical process.

So they have just taken mathematical algorithms and applied them to the districts and this is what they came up with.

>> COMMISSIONER EID: Wonderful.

It might help this Commission if we could get a report of how the current Michigan maps are.

So we have something to compare the maps that we draw to in the future.

I'm on plan score right now and it says for example just the efficiency gap for the U.S. house in Michigan for the previous plans were plus 12% republican.

Mean median difference is plus 6.1 republican.

And then it has partisan bias here.

Is that lopsided margin?

>> DR. LISA HANDLEY: It's not lopsided margin.

it takes a little bit more to calculate.

I have not advocated for that to be included in your report.

But you could put your districts in there and they will calculate it for you.

>> KIM BRACE: If I can add one thing, it's a good suggestion that the Commissioner Eid had made in terms of looking at the current districts as they relate to these scores. We would be able to do that once the data is all set.

It's all there.

It's in the system.

So that then you can generate that.

One of the things that we will be generating initially, of course, is those data from the Census Bureau itself of the populations of the existing districts and the racial characteristics of existing districts.

Those are immediate kinds of calculations and data set that is there in the PL file. In order to get the political side, that's where we need to bring the plan back in to the system here once the system has been built in with the election result.

And then you can generate that political kind of a calculation of the existing District.

>> CHAIR KELLOM: Do we have anything else for Dr. Handley before we move on to our experimental state of the thumb? Or Dr. Handley thank you so much.

Again, it's wonderful to see you in person.

You look lovely today.

And I'm sure we will continue to pick your brain on partisan fairness measures.

At this time we will move on still to new business, item 6A2, conclude the experimental state of the thumb.

>> KIM BRACE: Yes, what we wanted to do in terms of this time is look at several different aspects of what we are dealing with.

I'd like to get people's input and views of what they have drawn so that like what Anthony did yesterday I'd like to go around and get people's creations that they have generated so we can talk about that.

We've got a bunch of time in order to do that.

I will also end up doing a couple of administrative things at the tail end in terms of them looking at the homework assignments and that sort of thing that we have for you.

But I wanted to start off this process by going back to the thumb, the state of the thumb. And it's something that you all have been attempting to do.

We are still I know we are waiting for I don't know if that is your new machine Anthony or it's your old machine.

You told me yesterday you're waiting for new stuff coming in from the Secretary of State of the reimaging and all that so we don't have everybody up to where we wanted to have.

But it's close, I think.

But I wanted to try to let people talk about the District configurations that they have drawn.

If you remember, the homework assignment was to take a look at the state of the

It's got about a million people in it, a little bit more.

And to draw 15 districts.

That was specifically designed so that you're not creating State House or State Senate districts.

And those ideal populations, but something a little bit different on that side.

Part of your assignment was also to go take a look at the communities of interest information that's in Moon Duchin's site to see where there is concerns that have been voiced in that area of the state.

And incorporate that into your plan concepts that you were looking at, trying to create.

We are waiting for and we are supposed to be getting a report today, if you notice the agenda, from Moon this afternoon, after our break.

To see where we stand on her side.

We were supposed to get some stuff last night.

We haven't seen it yet.

So we are waiting for that sort of thing to get the shape files of what's going on.

So that's all coming together ultimately.

But that's where some of the goals that we are trying to set so that we can provide you guys with everything that you're going to need on that side.

So I'd like to pull in people in terms of explaining what you've done.

I will tell you that one of the things that we're going to want you to do, and I'll go through this at the tail end, is provide a shape file from your system.

Right now your system is independent totally on your computer.

It's not tied in with the state.

You know, in terms of even back up or that sort of thing.

So it is on your computer.

And what we're going to ask you all to do is to create a shape file of your plan that you've created and e-mail it to me.

So that then we can provide it to the Secretary of State's office.

They can put it up on your website.

We can do all of that in order to facilitate public comment on that regard.

And it is one way to also in the public comment tool that is in the my Districting system, you can bring that in and see that as an overlay.

And then people can comment on it.

I'm going to show you when we get towards that side of the conversation one of the public comment tools that we've set up in cook county Illinois that just went live yesterday.

So that you can see what the public is able to do in the public, the my Districting system.

That is like what you will have on your side.

Similar to what Moon has, but this is one that would be tied in more closely with my Districting and the auto bound edge system that you have.

So that's how we are trying to get as much as what we can out for everybody to be able to comment, to add notes, to add reactions to, to say my God, what the heck are you creating or whatever the case may be.

You know, just to let people know what's happening on that side.

So, with that, I'd love to get a volunteer.

We saw a little bit of Anthony's yesterday.

And one of the things that we want to do is let you connect in through Zoom so that we can see on your monitor what you have.

I think we can accommodate that, yep.

So that that way we can see.

We are going to want to -- we are going to play kind of Referees because we are not judging you on the basis of how terrible or how great your map looks.

What we are going to try to Judge you a little bit on just some of the things that we end up seeing and point some things out for you to keep an eye on.

Like what we did yesterday with Anthony's plan in terms of oh, you have dual labels over here and what that means and how you can fix it and that sort of thing.

So that's the goal of this morning's exercise, to get some feedback to you so that you know, okay, when I'm drawing now, I need to run this report.

I need to run the dis-contiguous one and run what is missing from my plan one.

Just as a way of starting to cleanup and make sure that you've got everything assigned, assigned once in the system and you can then starting to better evaluate what the plan is in that regard.

So whose going to volunteer? Okay.

- >> CHAIR KELLOM: Thank you Commissioner Orton.
- >> COMMISSIONER ORTON: Okay, I'm going to try and share my screen.

Okay I made several.

- >> COMMISSIONER ORTON: They are not necessarily good.
- >> KIM BRACE: You have been active, that is important and good.

- >> That is a good sign you have several plans you looked at and hopefully each one is a little different.
 - >> KIM BRACE: Right.
 - >> COMMISSIONER ORTON: Just a minute, I need to.
 - >> Maximize the screen maybe so you can get more up there.
 - >> COMMISSIONER ORTON: I can't do touch screen when I'm sharing.
 - >> You can use Zoom to District function to back you out a little bit.
 - >> COMMISSIONER ORTON: I don't know what you want to see.

This is purely by population.

I've noticed in the back of my mind I just naturally am trying to not break up counties and Townships and cities, but then I realize that is low on our list of criteria.

I don't know how to handle the other things.

So that is just my natural desire, as well as compactness which is way down on the list. But I know that everyone wants to see compactness.

So those are the only things that I paid attention to really.

Maybe Zoom in and on this one I started with the Flint area because I knew that it was, the City itself was too big to be one District.

And so I just thought that would be a good place to start.

And I had no idea where to cut it as far as communities of interest might be.

So this is what I ended up with.

- >> KIM BRACE: I see a little red box.
- >> COMMISSIONER ORTON: I see that.
- >> KIM BRACE: Up there.
- >> COMMISSIONER ORTON: I'm sorry.
- >> KIM BRACE: Within.

That is a clue that you have a piece.

Because what the system is doing is it's Zooming to the District and it's drawing a boundary around the District.

But you've got a piece inside of that and so it is outlining that donor pole.

That is why you have a little red box this that little piece there.

And there you can Zoom in and ah, you've got a piece of geography that looks like it's probably unassigned.

But you can catch that by, yes or.

- >> COMMISSIONER ORTON: Is it a block?
- >> KIM BRACE: Yes, and you can see that by having that boundary on it and then it kind of highlights to you.
- >> You are using the Zoom to District tool to do something else because it does the outline around it and allows you to do something that wasn't actually intended to do but it's helpful.
 - >> KIM BRACE: Yes.

>> COMMISSIONER ORTON: You guys know this so well.

Can we just download this.

>> This goes back to what Anthony had yesterday.

If you go to analysis and do error checking, while you're working it would have found that earlier.

Now, that is a high apartment complex let's say thousands of people in there it could wreck your District and you have to go back and start over.

So use that analysis, check for errors, a regular dis-continuity, use all the tools.

- >> COMMISSIONER ORTON: I don't know does anyone want to see anything else in there? That is all I got.
 - >> KIM BRACE: You can Zoom to District two or you know.
- >> I would go to analysis right now and check for errors and just get those knocked out of the way and be done with it.
 - >> COMMISSIONER ORTON: Okay, I have to remember where that is.
 - >> KIM BRACE: That is right there, yep.
 - >> COMMISSIONER ORTON: Check for errors.
- >> While you're doing that, I was going to point out that you do want to check for errors like you're doing but also sometimes you've got a concept there and there may be an error but you want to keep the concept.

You are like oh, this is just one block different but this is what I was really intending to do.

So even though you are focused on having a map that is finalized checking for errors you are also testing your concepts and if they are a little off that is okay because you can take that concept to a new map or to share with someone else.

- >> COMMISSIONER ORTON: Okay, so check for unassigned areas?
- >> KIM BRACE: That would be both of these.

They are both important ones.

So you have 26 unassigned pieces there floating around.

And what you can do is then select that, double click on it, and it will Zoom to that so what you're seeing here is a circumstance of you've got District six up above and you've got nothing identified as a District down below, okay? So what you are, you are at the outer boundary of the thumb.

Okay? And when the system goes and created the thumb it basically did a cookie cutter and it cookie cuttered from the top layer going down geographically.

And what you end up finding is that sometimes that cookie cutter ends up cutting into a piece in the lower levels of geography and that is what is happening here.

So while this says it's unassigned area, but you know you could try to assign it to District six but it could be this quirkiness of what is happening with the thumb and we won't see that when we go statewide because we have the whole state.

But this is this quirkiness of dealing with the subset that is there.

So that's where so yes go through and see if you can find the block like what we found before but be cognizant if you will see all of this with one District on one side and no District on the other side.

That's what these kind of things are.

- >> And Kim alluded to this earlier they are just called slivers and it's part of the, you know, the overlap of the different layers.
 - >> KIM BRACE: Yes.
 - >> COMMISSIONER ORTON: Okay, so I'll check for.
- >> Those kind of inconsistencies can show up in shape files but they will all be cleaned up and fixed before y'all start working on it.

Like you said they are called slivers and as you're drawing districts, you're going to run into them because you will create them because you're not going to lasso the median in a highway.

And you can't see it because it's literally six feet wide and they will pop up there and you click assign and move on to the next one and it's pretty normal.

Population little water blocks or an island or you are lassoing in but don't catch it.

>> KIM BRACE: That's what happened to a lot of people last decade because the Census Bureau if you remember one of the charts that I had of how many blocks there are nationwide, well, they went from 11.3 million down to like 10 million between 2010 and 2020 because of those median strips, those not cul-de-sacs but the clover leaves in the freeways, all of those were causing people enormous problems last time.

Because they couldn't catch them all on that side.

Software will help catch some things for you.

But it was cumbersome for a lot of people last time.

So the Bureau has cleaned up a lot of that.

Now, we are sitting here, creating a couple more in this, you know, state of thumb on that side.

But that's the kind of thing that just keep that in mind and when you do this cross check and the check for unassigned, check for dis-contiguous, yes in the state of thumb you may have some there.

But when we get statewide, then it will be all your fault that you did it as opposed to the creation of the thumb.

On that side.

>> Also in Commissioner Eid's plan there was an issue of dis-contiguity but it was caused by the boundary of the townships and the cities so in this case with the little slivers or unassigned areas it may make perfect sense just to assign the adjacent district and you are done. However, sometimes you may be assigning a geography you didn't intend to assign, from another geography. You may say I didn't split that township, but when you are assigning it later, you may have created a new split you

didn't intend to. So a lot of times you will back out and look again after you make a change.

>> And it's a good point he made because the way I understand it once the plan is out there for public review, it's been adopted, if you find these even unpopulated areas General Counsel, the way I understand it is the 45 days would start over.

So it's really important to not -- I don't know how it will work even with zero population get these things cleaned up, like he was saying you done want a split precinct that has no people it just looks bad.

>> COMMISSIONER ORTON: I think that is where you guys come in.

You have to make sure we don't.

- >> We will do some checks for you.
- >> That is why we have a report, a paper report online you look at it.

It just says show me all split districts or split features and when you come down to the precinct with zero population and then that same precinct with most everybody in it you know ah-ha let's go back and fix this.

>> KIM BRACE: What you will find is that in many instances this is the problem with City boundaries, not matching Township boundaries.

And all of that.

And so it is the annexations that cities put into place that cause these kind of problems. So be cognizant of that as you are drawing.

If you're going to assign at the City level be cognizant that you may be creating little pockets or little pieces that are incorrectly assigned in order to get around that it may be that you got to go back down to the block level in order to assign that little piece here or there on that side.

But by its nature then you are creating a split of the Township maybe or a split of the City.

You know, and so what you will fine as you draw and you continue to draw and do these kinds of things, you will start seeing that, well, because of the strangeness of City geography in the State of Michigan I'm automatically going to have umpteen cities split no matter how I try to avoid splitting cities.

Just these annexation pockets are going to cause that.

And it's not something that you can solve.

It's the City Government that put that into place.

And so, you know, we will have to say as part of our report, your report, you know, this is why we've got 18 cities that are split, or whatever the case may be.

- >> CHAIR KELLOM: Ken?
- >> This just brought to mind it probably will show up and not as bad as last time but use aerial photography as your background occasionally.

And the road and the census data doesn't line up perfectly with the aerial photography.

And people get stressed at that because they will say this house is in this District and you're saying it's in that District.

The aerial photography doesn't have to line up.

That's totally different entity where we are getting the aerial photography from.

So look at the geography features that are in the census data as the primary source.

And just realize that you know that is just a little shift.

we get it in Google maps and we go my house is not 500 feet off the road it's 300 or 50 but you get there.

Just be aware of that.

You're going to find and you're going to have I'm sure citizens concerned when they see y'all's District map on top of my aerial photography and I'm not in that District.

It goes by the census features.

- >> CHAIR KELLOM: Thank you.
- >> KIM BRACE: And it is something if you look at over the decades the aerial imagery has gotten better.

And the Census Bureau has gotten better of bringing in line features, roads, that sort of thing, so that they do overlay with the more exacting aerial photographs now.

So it was much worse when I started.

You think you were going blind with glasses that were tilted one way or the other.

Or you're looking at 3D pictures on that side.

But it has gotten better.

- >> CHAIR KELLOM: Commissioner Eid?
- >> COMMISSIONER EID: I think also something to keep in mind especially when it comes Two Cities that are going to need to be broken up because their population is too big, that's exactly where we are going to be able to use data like communities of interest data once it gets loaded into the software in order to make those decisions.

We don't have that yet, which is why, again, this is only practice using an arbitrary number of people and not related to the actual State Houses that we're going to be drawing.

But once we do get that community of interest data in since it's so high on our priority list, I assume it can help us make these decisions.

>> KIM BRACE: It will to a certain degree.

And this is a good time to explain because we just talked about the problem with aerial imagery and census geography.

Now, Moon's system is set up on 2010 geography.

And if somebody was drawing a community of interest on her mapping system and saying I want this community of interest to go This Street, That Street, That Street, back to the beginning point, that piece may not exactly overlay the 2020 geography. So we will have to see.

But keep that in mind that it may be this attempt at conflation that is causing that kind of thing.

And we note that in terms of the report or whatever and trying to explain.

But that could be something that comes into play as we get it.

So, yes, it's important to look at them but be cognizant that you may be playing with 3D glasses to try to figure out what the heck people's intent was.

>> CHAIR KELLOM: Thank you Kim.

Commissioner Orton?

- >> COMMISSIONER ORTON: Should I check for -- how do you say that word.
- >> KIM BRACE: Dis-contiguousness.
- >> COMMISSIONER ORTON: Do I test for that?
- >> KIM BRACE: Go ahead and test for that.
- >> COMMISSIONER ORTON: 19.
- >> KIM BRACE: You got 19.

What it's saying to you is you've got a dis-contiguous piece in four, District 1, 2 and 3 are good so look at District 4.

This first part is that large piece of District 4.

Now click on part two, okay, there it is.

>> See where it's left hanging over.

At one point we had four.

Keep going out.

- >> KIM BRACE: So you have a little piece there that has been assigned to District 4. So in reality of where that piece is located, if you Zoom back into it, in all likelihood you want to assign that to District 14.
 - >> COMMISSIONER ORTON: Right.
- >> KIM BRACE: And it will show you on the assigned districts if it's sitting there without touching anything else, it's sitting as a doughnut hole it's going to say, hey, you want to assign it to the overall District that that doughnut hole is within.

If it's on the edge, it will give you two different districts.

And you have to decide.

And use that adjust districts and assign it to that and say assign and it will then assign it to that District.

- >> One second, in this case it might be a different geography like again you may have taken all of the City or the town of Lapeer in Lapeer County and that is what is causing this.
 - >> KIM BRACE: Right.
- >> If you looked to Zoom back to where you were there is a little -- there is another arrow right beside it.
 - >> COMMISSIONER ORTON: Yes.
 - >> The cross etched it's going to show up.

- >> It's probably unassigned.
- >> Undersigned or it's another error having to do with another District.

While you're here you could fix it.

- >> KIM BRACE: You can fix it.
- >> COMMISSIONER ORTON: So I did try to assign this one.

Can you see my cursor? To District 14 because that was the option it gave me. But it's not green.

- >> Check for dis-contiguities again and it should clean it up.
- >> KIM BRACE: The other possibility is have you locked any districts?
- >> There you go.
- >> COMMISSIONER ORTON: Okay.
- >> VICE CHAIR SZETELA: If you have your Directors locked you cannot change it through that.
 - >> COMMISSIONER ORTON: That makes sense.

I got to move it.

>> KIM BRACE: So that is another -- you're going to discover that there is a bunch of different things you got to keep in your mind, oh, I need to maybe it's locked.

Oh, my God what the heck did I do or whatever.

- >> You each do it a couple hundred times you will be fine.
 - >> KIM BRACE: That is right you will learn.
 - >> COMMISSIONER ORTON: Where do I look if it's locked or not.
 - >> Manage districts under the edit tools.
 - >> COMMISSIONER ORTON: Oh, it is okay.

That is what takes me so long.

I forget.

>> KIM BRACE: Yes, I know.

You will get better.

- >> COMMISSIONER ORTON: Yes, it is locked.
- >> KIM BRACE: That is why it's not letting you assigned.
- >> COMMISSIONER ORTON: They are all locked.
- >> KIM BRACE: That is why you couldn't assign it.
- >> Four is locked, they are all locked.
- >> COMMISSIONER ORTON: Yes.

Well I'll just unlock those two just so we can see.

- >> Unlock them all at one time?
- >> KIM BRACE: You would select all the districts and then hit the unlock and that would unlock everybody.
 - >> COMMISSIONER ORTON: So then I assigned it to 14 and that one worked.

So it looks like I have 13 problems in District 9.

>> KIM BRACE: Uh-huh.

- >> COMMISSIONER ORTON: Again this is around a City.
- >> KIM BRACE: This is a City piece problem.

Now, you're seeing in real life the problem with annexations.

So there you're ultimately going to have to decide is it more important for the City to be assigned whole or is it more important to -- for contiguity.

- >> COMMISSIONER ORTON: So we have to have contiguity.
- >> KIM BRACE: That's right.
- >> COMMISSIONER ORTON: So the easiest answer would be assigning all the Townships around the City to the same District if population allows, I'm thinking.
- >> KIM BRACE: If population allows and you don't create non--contiguity for the Township, you see? There is both avenues that are hitting here.

Both the City as well as the Township.

And it may be that you're going to end up having to make a call on that regard.

Because Township Government may be important that they are also reflected.

So it's a judgment call ultimately.

But it's the problem of dealing with annexations.

And it may be that, you know, you're going to see this really live in the avenues and the criteria that you have before you, that the politicians didn't think about this beforehand. You know, on that regard.

So maybe they didn't assign the whole City and just dealt with the noncontiguous pieces in order not to have a dis-contiguous District, excuse me.

But those are the kinds of calls that you end up seeing when you're drawing districts.

- >> COMMISSIONER ORTON: So the way I see it is we will each do our homework and we will come up with our -- we will make our decisions then we will come together and discuss and see what other people's decisions are.
 - >> KIM BRACE: Right.
 - >> COMMISSIONER ORTON: I'm going to stop sharing now and let somebody else.
 - >> I'll do it, be the guinea pig.
 - >> KIM BRACE: Okay.
 - >> CHAIR KELLOM: Commissioner Witjes is going to be the next practitioner.
 - >> KIM BRACE: Guinea pig.
 - >> COMMISSIONER WITJES: Okay it does seem to be working.

This is Commissioner Witjes.

So I worked on this one last night.

And my goal was to just bring the plan deviation down as low as possible.

So I started in Flint.

I did that for two out of the five plans that I did make.

I just figured that is starting in the City would be easier for trying to calculate the populations that had the most.

And then basically I went on a clockwise order around the state.

I did check for the dis-continuities.

However, I did notice that when I check for unassigned areas there are five that will just not go away but I've noticed that on every single plan I've made as well.

So they are just five areas, it will say it's assigned but it just will not.

- >> KIM BRACE: And I assume that is all around the outer edge.
- >> COMMISSIONER WITJES: Yes, it is.

So, yes, feel free to comment on if you want me to look at anything. It's ugly.

I did split a couple counties up a little more than I wanted to just because I was working on plan deviation.

Other ones that I have aren't this bad.

But I started to figure out it is quite difficult to get the plan deviation as low as possible if you tried to truly focus on not splitting up counties or Townships because it becomes next to impossible.

- >> KIM BRACE: Bring your spreadsheet down to the bottom.
- >> COMMISSIONER WITJES: All the way?
- >> KIM BRACE: Yes, I'm sorry, I want to see District 15.
- >> Want to see more of it.
- >> COMMISSIONER WITJES: Hold on I will Zoom in.
- >> KIM BRACE: So your District 13 is sitting there at 2% while you tried to get everything under 1%.
 - >> COMMISSIONER WITJES: Correct.
 - >> KIM BRACE: So what happened there?
 - >> COMMISSIONER WITJES: Running out of room really.
 - >> KIM BRACE: Yes, welcome to the real world, yes.
- >> COMMISSIONER WITJES: Yep, I mean, I was trying to toy around with the adding and subtracting from one District to another and I realized if I start to do that it becomes a snake and I have to keep going from District to District and doing the same thing.
 - >> KIM BRACE: Yes exactly.
- >> COMMISSIONER WITJES: What you have to do is basically for making a small adjustment in say District 13, you're going to have to make adjustments potentially all the way down to District 1 to change one particular block to make it go below.

I'll leave that to be my if I'm bored assignment over the weekend to try and fix and see what I can come back with.

- >> Or the districts that have the numbers.
- >> COMMISSIONER WITJES: 8 and 10.
- >> KIM BRACE: So you take a look what are your biggest ranges.
- >> And put it back up.

- >> COMMISSIONER WITJES: Got it, got it so that would just be this little area so potentially adding here and taking away.
- >> It goes back to what I was talking about you have geographic boundaries where you are limited.

So just as an example the corner up there where 10 and 11 are, you know, you can get them perfect so that you get to where Flint has lots of population then that's where your flexibility is.

There is not much out there in the corner where there is no people, nowhere to go.

- >> COMMISSIONER WITJES: Right got it.
- >> CHAIR KELLOM: Commissioner Orton?
- >> COMMISSIONER ORTON: I just wanted John to kind of explain something that he explained to me which really helped a different way of looking at it, looking at the population.

I think we have kind of talked about it but I found when I started at Flint and just going around, I had the same problem so will you share about the math?

>> John: Sure, so I think you know when we looked at the plans we have not really looked carefully at every single person's plan or really even finished like you know we got into the details on dis-contiguity and didn't actually finish looking at the plan but many of you may have noticed for example Shiawassee County was one District and plus or minus 5% and many people drew districts that is all of Shiawassee county and that is perfectly fine.

In Dustin's case he would be trying to lower the overall deviation of his plan.

And so he is going to add additional population to that as an example.

So when the sort of methodology that I was suggesting is you can look at the whole number of seats, the ideal number of seats like Shiawassee is right there. And you can look for places where you have a combination of counties or maybe within a county a combination of Townships that are ideal for one District. But then you look at the other District, where you're going to make a split.

So, for example, I noticed that the combination of let's say Lapeer and Tuscola, if you put them together, Lapeer has too much population for one District so you're going to have to split the county.

But that fraction that's left over pairs with Tuscola so you have Tuscola plus a portion of Lapeer is a District.

So again by looking at the broader perspective you can look at those fractions so if you're going to make a cut what fraction are you left with and does that fraction pair with another unit, Township, a County and so that is just again taking a step back and then being more intentional about the splits that you do make.

- >> CHAIR KELLOM: Commissioner Rothhorn?
- >> COMMISSIONER ORTON: So I'm thinking about how at that point I wanted to see Dustin's plan and Anthony's plan at that point and I'm thinking about technology and our

process and when we get into mapping what our technological needs will be. Because we may potentially want to have two Zoom shares.

I'm not sure how to deal with it.

But I know we only have so many screens and so I'm just noticing like how much technology we might need or is it paper? There is something about that comparison and what you were just talking about.

>> Let me make one point and I will turn it over to Kim to answer this how to use a shape file or another layer set.

But for your point on that when you have you know let's just say you have 13, what if 60% of those plans are basically the same thing? So again I mentioned Shiawassee.

I bet a lot of you ended up making that move because you saw it, oh, it's right on the population, I'm good.

And so I think that that's a commonality you might find in a lot of plans.

So you can hold that as that's a concept that we kind of have consensus on even if it's not you are writing it in stone but it's a concept.

So in that sense some of your plans may be very similar and then you can focus on the areas where they are different.

Now, to my point I was going to turn it over to Kim, we are talking about shape files. And there may be a possible to look at two geographic boundaries on the same area depending on the functionality.

>> KIM BRACE: Yes, there is a couple different things.

Let me step back for a second in answering your thing.

One of the functionalities that you also already have here is that you can expand your screen capabilities.

And what I'm saying is that you all are on notebooks, okay? But if you have a second monitor at your home plug it in.

Because what the system allows you to do is right now if you, you know, anybody bring up your screen you've got the spreadsheet, you've got the menu.

And you've got the image.

You can unlock all three of those.

And so you can take that spreadsheet, bring it over to the other monitor and suddenly your image gets bigger.

You can see more.

Take your menu and take that over to the other monitor.

And that way you get the most territory because really what you're trying to do is see as much of the picture as you can.

So make use of technology in plugging in a second monitor.

I have here and I went to best buy last night to get additional cables and I couldn't get it all configured but I've got a little attachment that sits on the back of my notebook and gives me two monitors out to the side.

And that's great.

You know, I'll get it working and next time we do it I'll be able to show you guys but that is another way of trying to get as much real estate monitor wise that you possibly can. >> Let me add one other thing that is a possibility.

Kim said that he's going to produce print outs of the census population by county, by Township, et cetera.

One of the things you could do is you could take that print out as a reference outside of the software.

So you could look and just look up the population of Townships.

It -- because it's not a GIS system it does not show you the adjacent on the spreadsheet and sometimes people are comfortable with spreadsheets and sometimes in print it's a good reference so maybe you can do it outside of the software.

I have done that thing many times.

>> Typically anybody doing this kind of big mapping stuff, redistricting, I mean I know I was using 25, 27" screens decades ago.

You see what you have.

You have tables.

You got your function bar.

Just ability to sprawl across the state so much quicker.

So if you have bigger screens.

I mean I will be plugging up a 25 or 27" curved monitor.

>> CHAIR KELLOM: Talking about your fancy equipment with your budget.

Michigan Department of State Ms. Reinhardt you have the floor.

>> MS. SARAH REINHARDT: This is Sarah Reinhardt with Michigan Department of State I just wanted to add to that of course the Constitution requires contemporaneous public observation and meaningful public participation of the redistricting process in meetings so any additional displays that are used by the Commission in your discussion of and deliberation of District lines would also need to be displayed and broadcast to the public which I think is a bit of what you were getting at there, MC.

And I just wanted to say that whatever additional monitors or images the Commission requires to do its work is certainly something that myself, your communications director and AV contractors will be able to discuss and determine what options work best.

- >> CHAIR KELLOM: Commissioner Witjes, are you finished sharing your map? Okay, I think we have Commissioner or Vice Chair Szetela who wants to get in on the practice, so if we could, I'll give her the floor for her map.
- >> VICE CHAIR SZETELA: Yes, so I just wanted to share my map really quick because I'm having some problems with it.

So if you look at my data here, you can see that I have I tried to go for almost 0 deviation.

And I did mine a little differently.

I feel a lot of people started with the big cities and moved out.

I sort of moved out from two different sides and I started up by Midland and started up in the thumb and kind of came down and met them together.

So when I ended up with all of that I ended up in Flint.

And my map is showing that I have 5690 people unassigned.

But when I run the report to show, let me reduce this, we will reduce that down, when I actually run or I'm going to move this out of the way, when I run the analysis and look for, where is it, check plan errors, it shows I have no unassigned areas and no dis-continuities. And so there is no unassigned area.

So I can't figure out where I'm missing things from.

Which is kind of odd.

So but, yes, I did try to keep with keeping the counties together so my thumb regions I have the two counties together except this little carve out.

I did the same thing with Lapeer carved out the northwest portion of Lapeer combined it up with another county from Midland when I started up here, I was trying to keep Midland together.

And carving out the rural areas around Midland because we received a lot of public comment about that at hearings Bay City and Saginaw, I thought the populations were going to be too great to keep them together so I put them in two separate districts. Ideally, I wanted to keep this sliver with Bay City.

But I couldn't get it to work with having the sort of more rural area with free land and everything in it but then when I got down to Flint this is where I got into trouble because I just don't have the population.

And I don't know where it's missing from.

So it's sort of an odd little puzzle because I have 5,000 people missing but the plan is saying that I don't have any areas missing so I don't really know what to do with it so if you have any suggestions on that point that would be great.

But I do think I kind of painted myself in a corner by marching out and moving in. But other than that I'm happy with it.

I wish I knew where the 5,000 people were so I can fit them this somewhere.

- >> Can I assume you hit rebuild plan, the first.
- >> VICE CHAIR SZETELA: I did not.
- >> Hit it and see if it recalculates because it's going to recalculate all the data from the block up and re-sums everything in case there was and it may or may not fix it.

 And of course it didn't.
 - >> VICE CHAIR SZETELA: It didn't fix it.
 - >> Okay.
 - >> VICE CHAIR SZETELA: So just a little weirdness like I said.

If you look at the numbers every other District is off by 10 or 15 people one way or the other then you get to District 10 which is my northern Flint and it's off by 5,000 people and I don't know where those people are.

>> So in sleuthing this out, we will look at the software solution like Ken suggested and it may be an easy fix and it's a software to assign something and fixing itself. But you also might be able to you know look at the populations of Townships and you will say, oh, it's you know, specific places, exactly that population. So sometimes that will pop up.

>> VICE CHAIR SZETELA: I did also notice and I don't know if everybody can see it because I know it's small so if you look at my chart here where it shows that ESRY data it shows for District 11 as well that I'm significantly below.

And I'm not sure if that is the difference between voting populations and nonvoting.

>> It's a different data set.

We are focused on the ACS data and that is what you are using for target population but as Kim pointed out the ESRY data is also there which is just a different estimation system that ESRY uses to project census data.

>> KIM BRACE: What we are seeing in other states because we put ACS and ESRY next to each other is that in some instances what we are finding is that the ACS is actually not as good as ESRY.

When you look at aerial imagery and you look at the neighborhoods that are here, we found an example in Chicago for example that indeed the ACS said that there was 3,000 people in this census block.

And when you Zoom in and you use the aerial imagery, that block was actually -- it was a lack of a better term, it was a minority community that basically they did away with not red line but ended up doing away with the community because they tore down the buildings that were there.

So you look at the aerial imagery and it's great big park land and yet the ACS still says there is 3,000 people there.

If you looked at the ESRY data it showed there were 12 people there because they got the bums in the park or whatever the case may be.

So you can end up seeing sometimes differences that if indeed you look down and Zoom in to areas and bring in the aerial imagery sometimes that gives you a clue of what's going on.

But there are differences between ESRY and ACS.

Some of them are explainable.

Some of them you know we have worked with and talked to ESRY a number of times.

We talked with people over at the Bureau a number of times in terms of ACS.

It is just a different data set.

Sometimes one has one is better than the other.

>> VICE CHAIR SZETELA: So Ken when I did repopulate that it found the missing areas, so they were up in Midland so I have to readjust my map because my map is going to be off so that is helpful.

So if we run into that again we hit rebuild.

- >> KIM BRACE: Rebuild plan.
- >> What I have to say to that is I will, we will get a hold of Fred.

It should have, when you did dis-contiguous or unassigned they should have popped up.

I wonder and I'm going to check on it but wonder if it has to do with it's a subset of data that was stripped out.

>> Well the other thing is in Midland here you may have selected a precinct boundary that didn't like align exactly with the City boundary and so when you click and later you maybe assigning by the City and not the precinct and so there is an overlap.

It's rare and you know we will either know where those situations are or the data will be structured so that it's really not possible that they are all hierarchal.

>> This is a perfect example of what has to when the new census data comes in the processing of this data and the application to find any oddities.

And there may be none.

There may be some.

But there is another example of things that have to be run through.

And there is a reason why the data comes in and it doesn't pop out and you are working on it 48 hours later.

>> And again to amplify what Ken said earlier you know catching this early is great because then you can just readjust your plan, it was obviously just an oversight. You did not intend to do that and you worked through the population and you come up with a plan that reflects the actual population, not the missing population that you were stuck.

- >> VICE CHAIR SZETELA: All right thank you.
- >> KIM BRACE: You still have work ahead of you on that plan.

Sorry.

- >> VICE CHAIR SZETELA: I'm going to have to adjust it a little bit.
- >> KIM BRACE: It's perfect, yes.
- >> CHAIR KELLOM: General Counsel?
- >> MS. JULIANNE PASTULA: Thank you have much Madam Chair and good morning to everyone I just wanted to again give my daily reminder for the Commissioners and the public we are talking about the fictional state of thumb and the exercise is to familiarize the Commissioners with the software that they will be using and the consultant will be using for the actual mapping of Michigan. These are just practice maps.

This is practicing the software and I just wanted to highlight that for the benefit of the record.

>> CHAIR KELLOM: Thank you.

Any other Commissioners? Okay, it looks like we will be then moving to the homework assignment for August 12.

And who is going to lead us in that?

- >> KIM BRACE: I'm going to do a little bit of that.
- >> CHAIR KELLOM: So that is Kim, thank you, Kim?
- >> KIM BRACE: Indeed.

So what I have several different things to go over with you the back of the napkin at breakfast figuring out what my topic was and made use of the pad, that way very well. One of the things that I want you to be able to do is we are going to remember I mentioned when you have a plan and you have gone through these checks and gotten your districts where you think you want to and you don't have 5,000 people that's not there.

Or whatever the case may be.

And you solved that problem, what we're going to want you to do is create a shape file, okay? And so the way that you do that is, let's see, I need to what plug in, Sarah, I need to plug in to my machine.

>> CHAIR KELLOM: Someone is coming to assist you.

Okay it's over here.

I just did and brought it in.

So there we go, that is fine, cool.

You're looking at my screen.

I don't have a plan up here.

So let me go in and I've got a couple of let's see, just for the purposes of bringing in a plan, actually it does not have anything assigned.

That is fine.

But it lets me get into here.

So when you create your plan what you want to do is go over to the data exchange portion of the program, of that drop down menu.

It's the third from the bottom.

And you click on that.

And what it lets you then see is the sub menus.

You've got an export plan, an import plan and an export spreadsheet and an import spreadsheet.

- >> MS. SARAH REINHARDT: Mr. Brace apologies for the interruption, can you maximize your screen.
 - >> KIM BRACE: Sure.
 - >> MS. SARAH REINHARDT: Thank you.

>> KIM BRACE: That do it better for you.

Great, so what you are going to want to do is you are going to want to export a plan. So if I export a plan, it then sets up and opens up the area that your default system is set to on where to create a file.

And so what you want to do is you want to export something to where you're going to find it again.

I'm notorious for not doing that and trying to figure out where the heck did that plan go, I'm trying to figure out where I put it.

So figure out where you want to put things.

And exporting a plan.

What I usually do is I go into the plans sub directory and within, in this instance this is the statewide stuff so I got in my State Senate I have several different plans here and I'm in, if you look in the top of my screen, I'm in test of state of thumb.

So that is this layer here.

And that's where I'm going to put the shape file.

Because just from administrative side of things and knowing what -- how the system is set up, put it there so that it's kind of the collection spot.

For this particular plan that you have drawn, okay? And what you can do then is you see the default is setting up as a shape file.

An SHP file.

A shape file is a generic GIS term.

It is utilized, developed by ESRY.

And it's a way of sharing geographic levels.

And so what we are going to do is we are going to create a level of this plan.

And so we are going to create, we are going to give it a file name.

>> COMMISSIONER LANGE: Sorry to interrupt Mr. Brace.

This is showing so incredibly small on my screen that I can't even see what you're doing.

Is there any way for those viewing online that it can be enlarged even more? I don't know if that is possible.

Like when they shared their screens to show their maps it was large.

Right now we've got a tiny, little screen.

And I can't even read what it says.

- >> MS. SARAH REINHARDT: Commissioner Lange this is Sarah Reinhardt with the Department of State I can communicate with you in the chat to adjust your Zoom settings to enlarge the settings so hopefully that will be a larger image for you to see.
 - >> COMMISSIONER LANGE: Thank you.
 - >> MS. SARAH REINHARDT: You are very welcome.
- >> KIM BRACE: You are pointing out a good point you've got multiple pieces of windows opening up.

And so here you've got just the piece for entering a file name and saving it.

And it kind of uses windows default to give it unfortunately a small area of the overall screen.

And that's partly why Rhonda has problems of seeing this.

But you're going to want to create a shape file.

And just give it a name.

And hit save.

And it's going to go and generate this shape file in this sub directory that I pointed it to on that side.

And that's the shape file that I want you to send to me.

I'm going to be the collection point for all of you.

So, you know, KBrace@AOL.com is the place you want to e-mail this to.

Now, when you do a shape file, if you end up looking at the system itself, and let me go back over again, Rhonda, I apologize, it may be a little bit small but we will fly to get it so that you can see it.

Let's see, I have I've got it up here and see in my system similar to yours, you have and the state has set up a user Section.

And that's where the default is that Fred has put things in to.

And so that's in your user sub directory under whatever name your computer is.

Right now my computer is called administrator.

And so it is in the document sub directory of the user and there is a sub directory in documents of Autobound edge.

Okay? And that's where Fred ends up putting things in to.

So it's possible that that's where your plans are.

I've done a little bit different because I'm running a whole bunch of different plans all over the place so I actually have in my Michigan folder I have my plans here.

So for me that's where I'm putting my plans.

Yes.

- >> Did you just save one already Kim?
- >> KIM BRACE: I'm going to it.
- >> COMMISSIONER ROTHHORN: I show two shape files.
- >> KIM BRACE: That is what I'm going to show you and what you have is actually a shape file a default for ESRY shape file at the minimum has four files.

Okay? So it is the SHP file.

That's the one that it recognizes and that's what it thinks everything is.

But it also has in it, it's got a DBF file.

That's where the attributes are.

Okay? That are the attributes of this layer that you're creating.

It also has a PRJ file that's a projection file.

It's telling the system that I'm in Michigan northern latitude or whatever the projection is that is the default.

And it's got an SHX file.

So what you're going to want to have is you are going to want to collapse or zip up all four of those files.

So when you send it to me, yes.

- >> COMMISSIONER ORTON: I'm sorry could you just say the dot SHP can you say those again because I missed one.
- >> KIM BRACE: There are four file types you are going to want and they are all going to have the name of the file as the left side of that dot.

Okay? So I can see that in -- where I've saved this, I can see test Kim because that's what I called that shape file, I can see that it's got four pieces.

And so those four pieces are a dot DBF, a dot PRJ.

For projection.

A dot SHP for shape.

And a dot SHX.

And don't ask me what that is.

I can't remember.

- >> CHAIR KELLOM: Kim what was the first one please.
- >> KIM BRACE: Dot DBF.
- >> CHAIR KELLOM: Dot DBF, thank you.

Commissioners one more time because we are all type of learning styles first is dot DBF.

Number two is dot PRJ.

Three, dot SHP.

And then number four is dot SHX.

- >> KIM BRACE: What do you need?
- >> Turn your resolution off if that is okay.
- >> KIM BRACE: Sure.
- >> It's small because it's so detailed it's showing up small.
- >> KIM BRACE: Small, right, so is that in settings?
- >> Yes, display, there you go.
- >> KIM BRACE: We are on a high resolution because that is.
- >> MS. SARAH REINHARDT: Commissioners and for the public watching just for the record we are hearing that the image is coming over a little bit blurry for the virtual joining Commissioners and people watching via the live stream so we are just trying to modify the display of that to make it a better quality image.
 - >> KIM BRACE: So yeah so, yes that is the other place we can do it.
 - >> Is that a little bit better.
 - >> KIM BRACE: Rhonda, can you see this a little bit better?

>> CHAIR KELLOM: I think the answer is no because we have folks in the room that are able to monitor it on our laptops.

And Commissioner Curry's is the same at this time if there are no objections let's recess for ten minutes.

So at this time we will stand in recess until 11:15.

>> KIM BRACE: I just blew out of Zoom.

[Recess]

>> CHAIR KELLOM: Thank you so much for being patient.

The rest rooms are a little bit of a trek so I gave extra time.

So thank you for being understanding of our return tardy from recess, I call this meeting of the Michigan Independent Redistricting Commission back to order at 11:20 a.m. will Michigan Department of State Ms. Reinhardt please call roll?

>> MS. SARAH REINHARDT: Happy to Madam Chair.

Please say present when I call your name. If you are attending the meeting remotely state your physical location.

I'll start with Doug Clark.

- >> COMMISSIONER CLARK: Present.
- >> MS. SARAH REINHARDT: Juanita Curry.
- >> COMMISSIONER CURRY: Present.
- >> MS. SARAH REINHARDT: Anthony Eid?
- >> COMMISSIONER EID: Present.
- >> MS. SARAH REINHARDT: Brittini Kellom.
- >> CHAIR KELLOM: Present.
- >> MS. SARAH REINHARDT: Rhonda Lange?
- >> COMMISSIONER LANGE: Present, attending remotely from

Reed City, Michigan.

- >> MS. SARAH REINHARDT: Steve Lett?
- >> COMMISSIONER LETT: Present.
- >> MS. SARAH REINHARDT: Cynthia Orton?
- >> COMMISSIONER ORTON: Present.
- >> MS. SARAH REINHARDT: MC Rothhorn?
- >> COMMISSIONER ROTHHORN: Present.
- >> MS. SARAH REINHARDT: Rebecca Szetela?
- >> VICE CHAIR SZETELA: Present.
- >> MS. SARAH REINHARDT: Janice Vallette?
- >> COMMISSIONER VALLETTE: Present.
- >> MS. SARAH REINHARDT: Erin Wagner?
- >> COMMISSIONER WAGNER: Present; attending remotely from

Charlotte, Michigan.

>> MS. SARAH REINHARDT: Richard Weiss?

- >> COMMISSIONER WEISS: Present.
- >> MS. SARAH REINHARDT: Dustin Witjes?
- >> COMMISSIONER WITJES: Present.
- >> MS. SARAH REINHARDT: All Commissioners are present.
- >> CHAIR KELLOM: Thank you, Ms. Reinhardt.

I believe we just have a little bit to finish up on the homework.

But I was thinking if it would be helpful the homework we've had up unto this point if Kim you could kind of compile that with all of the instructions and I'm not sure if I'm giving too much task work but doing like screen grabs so we know what we have to click on and that way we would have a little work book over time to continue to practice, to reflect so that everything is not crammed in and then moving forward, you know, Commissions to come might be able to use that as a reference as they are doing the work.

Just their different learning styles I feel it will be so helpful moving forward and the tips and tricks the auto save, that is what I call it but it's not that.

Checking for the errors.

So thank you, that would be great.

>> KIM BRACE: Yes, absolutely.

Let me continue on just a little bit right now.

What I mentioned to you is those four shape or four pieces of the shape file I zip those up into my zip file.

I don't know if you guys have zip on your computer, do you?

- >> CHAIR KELLOM: We do.
- >> KIM BRACE: That is good, that would be my recommendation to you.

Is zip up, select those four and create a zip file of them and in my system and my vision of win zip it uses the file name that is there.

I'm going to call this test Kim.

And that becomes my zip file.

And I add the appropriate four files into it.

And that becomes that file right there.

And then you are just e-mailing me one file.

If you can zip those up.

I'll take all four of them if you can't you know zip them up yourself but it's a little bit easier for file transfer and then we know who sent it or what the file name is, that sort of thing.

So put your initials in it maybe or whatever so that if everybody is sending me test that's not going to help me in figuring out all right whose test is this on that side.

So maybe you know in your zip file put your initials on it or something like that.

That may be helpful on that side.

Rhonda, you should see the screen a little bit better.

We worked over the break in making my image bigger.

So I am hopeful you can see it a little bit bigger on that side.

- >> COMMISSIONER LANGE: Yes, I can, thank you.
- >> KIM BRACE: Good, all right.

So that is one avenue of what you want to do is export a plan.

Now, that gives me just a shape file.

That doesn't give me everything that I want from you.

What I'm also wanting from you is the spreadsheet and there is an export spreadsheet there in that menu.

And there what it's going to do is it's going to take this spreadsheet on the bottom of your screen that you have and it's going to export that spreadsheet and it's going to export it as an excel workbook.

Yes, MC.

- >> COMMISSIONER ROTHHORN: That is also known as the active matrix.
- >> KIM BRACE: That is known as the active matrix, it's going to export that active matrix.

Now, in mine, in what I've done here in my state, test of state of thumb sub directory where I'm going to, I already have an active matrix XLS.

I don't want to call this active matrix.

What I want to do is call this just like what I called the plan, test Kim.

Okay? And it's going to save it as an XLSX file.

So it is saving it as an excel workbook is what is it.

What it's going to do, because it's a workbook, it's going to grab all of those tabs that you have on the bottom of your screen.

Right now we have been looking at the overview tab.

But it's also going to grab the population, for ACS and ESRY, all of those tabs, that all becomes part of this excel workbook that you're exporting.

You may not have looked at this other data at this point, that's okay.

But ultimately that's a great way of capturing everything that you could have been looking at.

When we get the political data in there, that will be part of that excel workbook.

All of that is there captured in one excel file.

And so if we adopt the name of adopting the name of your plan and put your initials after it, so I'm going to add KB on to here, on to my excel workbook and save that as that workbook, that is exporting my active matrix.

So what I'm going to want from each of you is two files.

The shape file that's got the four pieces in it.

In a zip file.

And the excel file.

So that that's the way to depict the plan that you're creating.

Yes, MC.

- >> COMMISSIONER ROTHHORN: You don't want the spreadsheet in the zip?
- >> KIM BRACE: It is in essence I've set it up right now because it's two different operations.

You could, if you wanted to, add it in to the other zip.

You know, usually that's one additional piece.

And so I've just kept them separate on that side.

But that's the way that we're going to communicate so that the plans can get logged in on our side, shared with the Commission and the website on that.

So that we've got all of that documented.

Okay? Questions?

- >> CHAIR KELLOM: Commissioners no questions? Commissioner Orton?
- >> COMMISSIONER ORTON: So we only send something to you that we want to share, something that we have.
- >> KIM BRACE: Right when you feel satisfactory enough that it's something that you think you would want to share with people then share it with me first and we will get it out so that people can see it.

Say again now.

- >> CHAIR KELLOM: Commissioner Curry's question is but what if you don't think it's satisfactory?
 - >> KIM BRACE: Don't use the word secret in the plan name.

Just words of advice.

Learn the hard way.

- >> CHAIR KELLOM: Maybe practice, maybe practice and ready to share or something like that.
 - >> KIM BRACE: There you go, that's not bad.
- >> CHAIR KELLOM: Tag it with ready to share if you want Kim to critique and the rest of us to critique label it as practice.
- >> COMMISSIONER CURRY: My problem is for a person that never really uses computers I need more than a couple of hours with someone training me.
 - >> KIM BRACE: That's fine.

We can, you know, do individually work with you and on that side.

So that's what we've tried to do already and we will be happy to continue to do that.

- >> CHAIR KELLOM: Anything else before we move on in the agenda? Okay well we thank you so much, Kim, and John and Kim and Lisa who has been just truly so helpful for us as we are continuing to map and practice and start to be ready to share as well. So.
- >> KIM BRACE: I'm sorry so your assignment then is create some more plans and test the thumb and next time we meet we will talk about going statewide, okay?
 - >> CHAIR KELLOM: Okay we got it.

Thank you so much.

And we will look forward to you compiling all of our homework sheets together so that way we can continue to review.

I think that will also be helpful to Commissioner Curry's point of the additional practice, there is only so much we can accomplish when we are in person together.

So I think it will be a catalyst for us to be able to practice a little bit more fearlessly when we are by ourselves.

So I appreciate that, Kim.

Commissioners we are going to return or move through the agenda.

We are now at the review and approval of minutes.

We will now review and approve the meeting minutes from the July 29, 2021 Commission meeting I would entertain a motion to approve the minutes from the July 29, 2021 committee meeting which are also posted on redistricting Michigan.org.

- >> So moved.
- >> CHAIR KELLOM: Motion made by Commissioner Witjes can I have a second?
- >> Second.
- >> CHAIR KELLOM: Second made by Commissioner Lett is there discussion or debate on the motion hearing none we will adopt the minutes of the July 29, 2021 committee meeting redistricting process committee meeting all in favor raise your hand and say aye.
 - >> Aye.
 - >> CHAIR KELLOM: All opposed raise your hand and say nay.

The ayes have it, the motion carries.

For the purposes of the record, Commissioner Lange and Commissioner Wagner did vote aye.

We will now review and approve the meeting minutes from July 30th, 2021 Commission meeting.

I would entertain a motion to approve the minutes from the July 30th, 2021 meeting which are also posted on redistricting Michigan.org.

- >> So moved.
- >> CHAIR KELLOM: Motion made by Commissioner Witjes.
- >> Second.
- >> CHAIR KELLOM: Second by Commissioner Rothhorn is there any discussion or debate on the actual motion? Hearing none we will now vote on the motion to adopt the minutes of the July 30, 2021 Commission meeting all in favor raise your hand and say aye.
 - >> Ave.
 - >> CHAIR KELLOM: All opposed raise your hand and say nay.

The ayes have it and the meeting minutes are approved.

- >> MS. SARAH REINHARDT: Madam Chair.
- >> CHAIR KELLOM: Yes.

- >> MS. SARAH REINHARDT: Can you clarify what the date of the last approval was?
- >> CHAIR KELLOM: July 30th, 2021.

Is that an error?

- >> MS. SARAH REINHARDT: Can you give us one moment?
- >> CHAIR KELLOM: Director Hammersmith?
- >> MS. SUANN HAMMERSMITH: I believe both of those were regular meetings of the Commission.

You may have had a bad line in the script.

But, yes, they were regular meetings of the Commission per the meeting minutes just for clarification.

- >> CHAIR KELLOM: Oh, so July 29th and July 30th were regular, I'll redo the vote.
- >> MS. SARAH REINHARDT: Correct and there was also a committee meeting for the 29th as well.
 - >> CHAIR KELLOM: Okay I see.

Okay, so Commissioners, we now need to review and approve meeting minutes from July 29, 2021 Commission meeting.

I would entertain a motion to approve the minutes from the July 29, 2021 Commission meeting which are also posted on the redistricting Michigan.org.

- >> So moved.
- >> CHAIR KELLOM: Motion made by Commissioner Witjes, can I have a second.
- >> Second.
- >> CHAIR KELLOM: Second made by Commissioner Rothhorn.

Is there any discussion or debate on the motion which is to approve the meeting minutes from July 29, 2021? Hearing none we will now vote on the motion to adopt the minutes of the July 29, 2021 Commission meeting.

All in favor raise your hand and say aye.

- >> Aye.
- >> CHAIR KELLOM: All opposed raise your hand and say nay.

The ayes prevail.

And the meeting minutes from July 29 are adopted.

We will now review and approve the committee meeting minutes from July 29, 2021. [Off mic]

Okay we will now review and approve the meeting minutes from July 30, 2021 Commission, pardon me? Commission meeting, okay.

So Michigan Department of State Ms. Reinhardt do you have is it now accurate according to you? Okay great just making sure.

Commission now we have staff reports.

I understand that communications and Outreach Director Edward Woods the third would like to provide a report today.

So without objection I will ask Mr. Woods to share his report.

Hearing no objection please proceed director Woods.

>> MR. EDWARD WOODS: We just want you to know we are in the process of putting a report of all the work the Commission has done in terms of presentations. I mean and we want to make sure we have not forgotten anything but it's phenomenal the amount of presentations that have been done by the Commission.

As well as you know the entire Commission is just phenomenal.

The virtual presentations, the engagement, people are looking forward for you coming out and doing additional presentations as they will tamper down.

Obviously as you are drawing maps.

But I just really, really want to thank the Commission for the hundreds and hundreds of presentations that have taken place and just want you to know that report is on the way. We want to make sure we got it so you will probably hear from me just in case I missed something.

Where you present it.

But it is really, really heart-warming to see all the work you have done.

And the time and the effort.

Because I think so many times people see the work of the Commission as what is on YouTube and what is on Facebook.

But really what's not done behind the scenes because in addition to presenting there is also a preparation to ensure that the presentations come off highly professional. But also travel time.

You know just presenting your home communities you also go out in other communities so I want to give a shout out to the entire Commission for the outstanding communication and outreach you have done and continue to do to promote Michigan's new redistricting process.

Thank you.

>> CHAIR KELLOM: Thank you so much our communication and Outreach Director Edward Woods the third I appreciate the shout out and I'm sure some of the other Commissioners do as well as much as we appreciate all the hard work that it takes for you to prep and plan and organize all those opportunities for us.

So do we have any questions for Edward? Hearing none, it does not appear that we have a report from either General Counsel or our Executive Director, so we will move on and I will -- you do have one?

- >> MS. JULIANNE PASTULA: I'm confused.
- >> MS. SUANN HAMMERSMITH: If I may.
- >> CHAIR KELLOM: Director Hammersmith you have the floor.
- >> MS. SUANN HAMMERSMITH: I did not plan on it but things happened in the meeting to necessitate this.

I just one of the things we talked about when we talked about the tentative schedule was next week.

And we don't feel our mappers will be available.

So we would like to propose that we would start on Thursday, August 12 at 11 a.m. and in Detroit and run the meeting until 5:00 and cancel the Friday meeting because we can't start the mapping.

We won't be ready.

We need software downloaded on our computers by DTMB.

We have EDS getting the legacy data on Thursday the 12th and they are going to be busy drafting reports.

And there is plenty of homework that will be assigned to the Commissioners.

So it's not like you won't be utilizing that time.

Kim has just given you homework.

There is more to come here on my list.

So and some things that we talked about earlier.

So that is what I would propose, but we would need a vote of the Commission to do so.

- >> CHAIR KELLOM: Commissioner Orton?
- >> COMMISSIONER ORTON: I'm just wondering since we have to have the new whatever it was downloaded on our computer software would it be more efficient to do that while we're here and DTMB is across the hall? Or is that something we just do remotely?
- >> MS. SUANN HAMMERSMITH: It has worked both ways for people and I know Commissioner Lange has had no problem downloading the software as far as I know. She can let us know if she has had an issue.

If you need to be in this room or be taken to another room to do that, certainly there would be plenty of time before the meeting started to do that I believe.

So I mean we will work with you to get it scheduled.

However this Commission believes will best facilitate their work.

Also if you want to keep the meeting on Friday and cancel it next Thursday, that can be done also.

This room can be reserved.

We've also got the translators, ASL, you've got your people who do the closed captioning, so it's really wise if we can do our best guess and our majority of the agenda on next Thursday will be first an interview with the litigation counsel firm.

They had confirmed the date with me and we are working on the time.

And then, secondly, we would also talk about the process as we move forward for incorporating the flow chart and process for mapping.

And then also try to refine that schedule and get it back next week.

So those would be the two main agenda items on Thursday.

- >> CHAIR KELLOM: Commissioner Lange then Commissioner Witjes?
- >> COMMISSIONER LANGE: Just one guick guestion.

For 11:00 on Thursday, is that going to be adequate? Because yesterday we were told that for set up the soonest if it's not multiple days is Noon.

So I just want to verify that 11:00 will work.

- >> MR. EDWARD WOODS: Yes, I spoke to Jacob with our technology and they are able to start at 11:00.
 - >> CHAIR KELLOM: Commissioner Witjes and then Kim.
- >> COMMISSIONER WITJES: Here is my thought, I'm in favor of meeting on Thursday, that is not a problem.

I know for a fact that DTMB can go and do the installation remotely on your machine through the VPN.

So if we do cancel the meeting on Friday, that would be an excellent time for us to be able to work with DTMB and get it installed on our computers that day.

So we are ready to go next Thursday.

Without having to take time away from a meeting in general.

If anyone has any problems with their VPN or something feel free to contact me or DTMB will be able to help you as best as I can.

But if we set a day let's say next Friday when we don't have a meeting, we can all get the installation done.

That doesn't need to happen during an open meeting so why take time away from a meeting that we are going to have.

So that is my only input on it.

Because that would be a great day for us to do it.

- >> CHAIR KELLOM: Kim go ahead.
- >> KIM BRACE: Would I guess I'm reluctant to offer this but let me offer it anyway.

On the 13th, by that day, we would probably have some first cuts of what some of the data is looking at.

I can't be here with you, but I can do remote.

So I don't know if that helps you or you've already moved towards Thursday.

But just letting you know.

- >> CHAIR KELLOM: Director Hammersmith?
- >> MS. SUANN HAMMERSMITH: Certainly, we will be looking at receiving reports from Kim and that will be part of the homework as he is pushing things out for you to be reviewing those reports.

Whether he is here with us to talk to us about those reports, I don't know, you know, if you feel that's important or necessary, certainly we can do that.

But if we can also read the reports and let him keep working on his end to produce reports and really what we need are the data tables.

So that's going to take a little more time.

We want to be able to allow that to happen.

While we are doing other types of homework that will facilitate the process.

>> CHAIR KELLOM: Thank you, Director Hammersmith.

I'd entertain a motion.

- >> VICE CHAIR SZETELA: I move to cancel the meeting on August 13th which is a Friday.
- >> CHAIR KELLOM: Motion made by Vice Chair Szetela is there a second? Second made by Commissioner Witjes.

Is there any discussion or debate on the actual motion? I see a couple hands. Commissioner Lange?

- >> COMMISSIONER LANGE: Can we verify if the motion is including changing the times Thursday so we have it all in one motion?
- >> VICE CHAIR SZETELA: I can clarify the motion to move the start time on Thursday to 11:00 a.m. from 12 Noon.
- >> CHAIR KELLOM: All in favor of cancelling the August 13th meeting and changing the Thursday, August 12th meeting to the first start time of 11:00m a please raise your hand and say aye.
 - >> Aye.
 - >> CHAIR KELLOM: All opposed please raise your hand and say nay.

The ayes have it.

Motion carries.

Thank you, Commissioner Lett and for clarification the meeting will be as he said back here in Detroit.

11:00 a.m. Commissioner Curry for Thursday.

Is that it? Okay? All right Commissioners, without objection, I will ask Sarah Reinhardt from the Michigan Department of State to provide a report if she has one.

Hearing no objection please proceed Ms. Reinhardt.

>> MS. SARAH REINHARDT: Hello Commissioners.

My update for you was going to be that we will be here in Detroit next Thursday. But I think that has been established.

I also think that part of my update was to allow Moon Duchin, sorry, I cut myself off there to provide additional detail on the public comment portal.

She was scheduled to be here around Noon so she has not yet arrived but I will certainly alert you when she logs on.

>> CHAIR KELLOM: Thank you.

At this time the Commission doesn't have any correspondence.

At this time, what I'm thinking is that we will move through the agenda and go back when she arrives.

So moving on to a future agenda items without objection I'll ask Executive Director Hammersmith to share about future agenda items.

Hearing no objection please proceed Director Hammersmith.

>> MS. SUANN HAMMERSMITH: Thank you.

So in addition to the homework that Kim has assigned to the Commission, and this will all be sent out in writing but just here we want you to schedule the updated software with DTMB so you know about that but I will send you the name and how to do that. Also we will be sending the ACS data report.

So as you're mapping with ACS data you will understand the data sets that are available within that.

We will also ask you to review the public comment and maps for west and southwest. Now, that will be before the meeting on the 19th.

But again those will be upcoming so if you want to get a head start on that, that will be great.

And of course send Kim a shape file of your plan.

And I think that's about it.

But next Thursday, again, we will be having the presentation and Q and A from the litigation counsel proposal that we received.

And we will continue working on process and scheduling for future meetings. Thank you.

>> CHAIR KELLOM: Thank you Director Hammersmith.

And it doesn't seem that any of the Commissioners have any thoughts or questions about your future agenda items so are there any announcements for the good of the order? No announcements Commissioners? At this time if there are no objections, we will take a five-minute recess.

What do we think? Ten-minute recess.

So we will stand in recess until 12 Noon.

[Recess]

- >> CHAIR KELLOM: We have a lot of things in the meeting put back together and microphones and feet, I call this meeting of the MICRC back to order at is 12:04 p.m. for purposes of the public watching and public record I will ask Ms. Reinhardt to call roll.
 - >> MS. SARAH REINHARDT: Thank you, Madam Chair.

Commissioners, please say present when I call your name. If you are joining virtually state your location unless due to military duty.

I'll start with Doug Clark.

- >> COMMISSIONER CLARK: Present.
- >> MS. SARAH REINHARDT: Juanita Curry.
- >> COMMISSIONER CURRY: Present.
- >> MS. SARAH REINHARDT: Anthony Eid?
- >> COMMISSIONER EID: Present.
- >> MS. SARAH REINHARDT: Brittini Kellom.
- >> CHAIR KELLOM: Present.
- >> MS. SARAH REINHARDT: Rhonda Lange?
- >> COMMISSIONER LANGE: Present, attending remotely from

Reed City, Michigan.

- >> MS. SARAH REINHARDT: Steve Lett?
- >> COMMISSIONER LETT: Present.
- >> MS. SARAH REINHARDT: Cynthia Orton?
- >> COMMISSIONER ORTON: Present.
- >> MS. SARAH REINHARDT: MC Rothhorn?
- >> COMMISSIONER ROTHHORN: Present.
- >> MS. SARAH REINHARDT: Rebecca Szetela?
- >> VICE CHAIR SZETELA: Present.
- >> MS. SARAH REINHARDT: Janice Vallette?
- >> COMMISSIONER VALLETTE: Present.
- >> MS. SARAH REINHARDT: Erin Wagner?
- >> COMMISSIONER WAGNER: Present; attending remotely from

Charlotte, Michigan.

- >> MS. SARAH REINHARDT: Richard Weiss?
- >> COMMISSIONER WEISS: Present.
- >> MS. SARAH REINHARDT: Dustin Witjes?
- >> COMMISSIONER WITJES: Present.
- >> MS. SARAH REINHARDT: All Commissioners are present. No committee meeting on the 29th and no minutes to approve so the vote that was previously taking is mute so just for purposes of the public record and those watching.

At this time we will continue on our agenda with and some discussion with Moon Duchin so I will hand the floor over to Ms. Reinhardt if she has an introduction or something she wants to add before Moon speaks.

- >> MS. SARAH REINHARDT: Thank you Madam Chair and thank you for joining us today, Moon Duchin. She will be presenting on COIs and data migration process so I will hand it over to her.
- >> DR. DUCHIN: So in the collection I will talk to you periodically to talk about how it's going. And it's going really well and I want to sort of commend for your outreach and show you some milestones of how that collection process is going, talk about the forms in which the data is available not only to EDS and Citigate but to you and the general public.

And to sort of make sure that you see the steps that we are taking to aggregate the COI data into a form that we hope you will find useful.

Ultimately, the sort of magic of Independent Commissions is that you get to decide on so many parts of the process. And so our focus is putting together the best possible data product we think will be the most usable for you.

So I want to show you our progress and synthesis and talk to you about the end points of that process and why we think that it will be helpful. And make sure that you understand some of your options going forward with the process.

So that is my goal.

What I'll do is first I just want to give a very quick overview of what you are getting in the portal. So let me go to the right screen to share.

Okay, so here we are in the public portal. And as usual there is gallery. And you can see one thing has come in so far today by Noon, that is nice. And all the rest of these came in yesterday.

So you're still seeing lots of traffic and if you want to get a sense of that you can go to advanced search and see that in all your up to nearly 1600 submissions to the portal since it was launched in early May, which is really remarkable.

If you take a look at the types of those, you can see that you're up to 344 different submissions that represent mapped communities of interest.

And one thing I want to do, last time I came and talked to you it was with the suggestion to reach out to you have a very large number of written testimonies in your database.

And the suggestion was to reach out to those who had submitted written testimony, that describes a geographic area and invite them to map their testimony.

And so Sarah Reinhardt did that and I have to tell you it's an enormous success. And we provide reports every week that show an overview of the feedback that you're getting. And if you look at this week's report, I just want to highlight for you what a remarkable success that is. So look at the last two weeks. You can see the actual mapped communities of interest, which were clocking in at 15 or fewer per week, ticked up to 64 and then 170 in a single week in response to that invitation. So I think that went really well.

A quick word how to access the data. So we have put together a help sheet for EDS and Citigate to make sure they have access to everything that they need.

There is an API endpoint that you can go to to get the full spreadsheet of all the data that is in all the submissions on demand any time that you want it.

We also provide this on a weekly basis to MDOS in our update.

There is a description for how to make a shape file and here is a snapshot from yesterday of what the COI submissions look like.

So out of those 300 and something submissions there were 400 areas collectively identified by those submitters.

Here is what they look like.

And I think I'm not sure if I mentioned this last time I came to speak to you but you hit a milestone recently now the submissions cover every square inch of the state.

Everywhere in the state someone has given you information about what to understand about that region or community and that is really I think a very exciting landmark in the process.

Great so that is just a little bit about how data flows.

There is already a shape file that has all the submissions so far.

And instructions for how to build one any time you want so if you want one tomorrow and you want one again the next day instructions for how to pull that out of the portal. As shape feel a GO, JSON or a format helpful for your mapping team and that is to assure you the data is freely throwing.

All of this I want to remind everyone this is what is so notable about the way this data is being collected and processed is that it's also transparent.

So members of the public also have access by going into the portal you can go to any individual submission.

By clicking open this in Districtr you can export it as a shape file or JSON there is a lot of different options this is really an experiment in democracy and one that is very exciting where it's so easy to access what used to be just insider materials.

So I welcome any questions about the flow of data. And I would like to take a few minutes to tell you what it is we are going to do with it all and how we are proposing to make it maximal actionable and useful for you as you turn to draw the lines.

In I questions about data availability? Okay terrific so here is my brief presentation to show you some of the progress in the kind of data science aggregation I've been promising all along.

>> MS. SARAH REINHARDT: Apologies for the interruption I just wanted to let Commissioners know I'll be circulating the cheat sheet that Moon just showed for your use so you can access additional data.

And assuming that it's okay to post online we will also be posting it online for public to see.

>> DR. DUCHIN: Everything is public and fully transparent and Kim Brace is on the call hi Kim so let us know if there is any other formatting to help you do your job in the best way.

Okay great, as I go, please feel free to interrupt.

I'm really here you know at your pleasure to try to answer any questions that I can.

Okay so let me transition to this brief discussion of then what? That has been a big kind of new thing to work out.

In my view we are kind of in a new world with respect to data.

There is so much more of it than there was ten years ago that we have to kind of harness a data science techniques to try to make it all usable.

So I'm going to give you just a brief overview with like I'm delighted to go into any deeper detail that is requested.

So I put together a few slides and then I'll also show you live what it looks like to interact with some of this data.

So I mentioned and here is the reproduced I'm -- image as of yesterday there were 407 distinct areas of interest that came in 300 odd unique submissions.

So what do we do with that? So one thing that we see on the left here is the precincts which are the units that are shown in the portal mapping software.

You see the precincts of Michigan together with adjacent graph that shows what is next to what.

For some of this if you look at Isle Royale in the north, we use Michigan Constitution to figure out the definitions of what is next to what.

This is and please feel free if you want to revisit any of this all of this is again open transparent and up for grabs.

We are trying to do our best to interpret the rules as they exist for you.

Okay so these are the units and what's next to what.

So the first thing we are attempting to do with all the COI submissions is to cluster them is to figure out where there are areas geographically in the state where you are getting a lot of submissions so the process I'm about to outline goes first you run geographic clustering then you grab all the narrative text that accompanies those submissions and you do what's called language cluster and language processing and text clustering and then return for the COIs and I will try to illustrate that over the course of a few slides. I'm going to at a very 10,000 feet up level of detail describe two different ways that you can do geographic clustering.

So the first one and there is a screen shot here that kind of is a little piece of the notebook we were using to run this.

Would be where you take the submissions that people gave and you measure how much they overlap.

So this is a little snippet of an algorithm that matches the area submitted by one person to the area submitted by the other.

So what it does is it takes the two, lays them on top of each other.

And pulls out all the overlap and then for the ones that are left over it looks at some distance, matching distance to see how far apart they are.

All that is to say it's a quantitative way to measure how similar the geographic areas are that are represented by distinct submissions.

And then you get this colorful picture you see here which is called a dentagram you get this kind of hierarchy how related things are and by cutting it off at a particular level you get different clusters around the state.

So if you want detailed clusters you look to the bottom and if you want kind of summarized, bigger clusters you cut it further up in height.

So what does this do? This produces a picture like this.

So here is an example for Missouri where we were running this, this week.

And in this example, you can see that the most dominant cluster in Missouri so far comes not from St. Louis but from Kansas City.

That is the dark blue color means not included the lighter green to yellow coloration is being picked out so if you know your Missouri geography you can recognize that is Kansas City being identified.

What this is doing is detecting that there is a cluster of submissions from Kansas City containing 90 submissions.

I will show you in a minute what to do once you have done that but just to mention great data science team, we put together that includes not only members of our group but faculty from around the country and we have been thinking of other ways of doing the clustering so this is just an illustration of something called spectrum methods for those of you who are more recently out of your math training might recognize this is a linear Algebra method and take data and code it and look at end values.

This is a classic technique in statistics for finding similarities in data sets.

So here you see Missouri again and now Michigan as well.

And we've used these spectrum methods to find the top 40 regions in that emerge from a spectrum technique for finding structure in the data.

What's nice about this way of doing it is that it looks for pairs of units, in this case pairs of precincts that frequently appear together in someone's submission.

And it tries to avoid splitting up units that are often grouped together by your public, by the folks who are telling you what it is that they want you to know.

So there are many, many ways to do this and we've got you know a few that we have been working out.

And they work pretty well at detecting regionalization in what you're hearing from folks. Okay so now what do you do with all that? That obviously isn't going to get you very far in understanding after all the goal of communities of interest is to hear from people what they are telling you about their shared identity, about their shared needs and so what they have to say is just as important as where they are saying it.

So next comes a layer of data techniques that go by the name NLP or natural language processing.

So what you see here is a snippet of the data frame that comes from the Kansas City cluster that I showed you a few slides ago.

The first one is repeated twice but that is just a notebook that produced this.

And so what we were doing is grab submissions from the same geography and see what everyone has to say, what did they name the area, what did they describe in Districtr what they have in common and what accompanied the submission when they put it in the portal.

So we are able to mine all the words and phrases from the narratives that people provided together with their submissions.

And then we are using experimenting with various packages like SPERT which is sentenced based word to vec and puts words and phrases in a vector and applies the same kind of clustering techniques I talked about before and a variety of NLP packages. What these are for is letting themes emerge from the submissions.

So now we are able to look at Kansas City and say, okay, some of the common themes are gentrification bus lines and so on.

So the outline of the process that we have in mine goes from geographic clustering to narrative clustering.

Once you've picked dominant themes from narratives you go back and map them. At the end of the process this we hope to identify several dozen what we are calling emergent COIs the phrase is not meant to be jargon or term of art it's telling you they are not COIs we imposed on the data they emerged from data analysis.

What is I think so useful for you about emergent COI is each one is supported by multiple public submissions and identified through a kind of hands off clustering process.

Each of these will have names of the what folks put in as their names of the areas, narratives, and scale descriptions for each.

So when we give you a COI that corresponds to you know a neighborhood or region that is supported but I multiple similar public submissions we will tell you how many people live there and we will be able as you saw before link back to the supporting submissions so you see what folks have to say that led to the data process identifying it as a salient, COI for redistricting.

That is your job and hand it over and your job to negotiate how to use them in the Congressional Senate and house plans.

For instance if we pull out emergent COI that has 300,000 people in it and as you all I hope know we've had this kind of new announcement from the Census Bureau that we expect the new population numbers on Thursday of the coming week, very exciting less than a week to go.

Well we know how many people live in one for instance if you have a COI with 300,000 that is a great size at the Congressional level.

Of course you don't want to try to keep that it's not possible to keep it whole in the house.

So from this kind of menu of a few dozen that emerged you will get to think about how you want to draw the lines around them.

So just to be clear, you can also going back to the beginning here you can also have the full body of submissions and you can see each one as its own overlay.

The usability obstacle there is that as I said you had an Atlanta mark recently where they covered the entire state.

It's not possible to make a Districting plan that doesn't cut through anyone's area of interest, which is a good sign, it's a sign you are getting lots of public engagement. But that means you will need to distill those to have them inform the line drawing process.

Okay so that is the heart of what I wanted to say.

I'll pause that share and maybe just give you a super quick glimpse of what one of these notebooks looks like that produces the data and turn it over to questions.

So here back in my browser it's a book with a dentagram that produces data and show you what it looks like.

You can see individually all the different submissions that support a given cluster and then if you get past it you can get to the next cluster which in this case is now St. Louis and see all the different submissions that supported that.

Just to give you a glimpse of what that looks like.

Okay, I'll pause there.

Does anyone else have questions about the aggregation process that I've outlined?

- >> CHAIR KELLOM: Moon there are no questions so far on our end about that process.
 - >> DR. DUCHIN: I know that was a lot and may take a second to sink in.
 - >> CHAIR KELLOM: Commissioner Witjes has a question for you.
 - >> COMMISSIONER WITJES: Hi Moon this is Commissioner Witjes.

You said there is going to be a way for us to get that information? Like in real time if we wanted to like every day?

>> DR. DUCHIN: Yes absolutely.

That already has been shared with Kim and Sarah and everyone else I think to share it with.

So there is absolutely instructions for how to first of all you can go to the portal any time and see what's been coming in just to be clear.

Secondly, every Wednesday we provide a summary report on the trends and themes that we observe just with human intelligence, not algorithmically but members of the lab actually read everything that comes through your portal.

And so every week we give you kind of a human summary of what we saw in the previous week.

But the instructions, the data flow instructions that were just passed along tell you how to generate that data in a whole range of forms, geo, JSON.

CSV at-will so you can do it any time you want.

- >> COMMISSIONER WITJES: Perfect, thank you.
- >> DR. DUCHIN: Whether you are thinking if you have questions, I will just say I want to be clear that I don't think anything about communities can be totally outsourced to computers.

Right? And so the idea here is that you have gone out and gotten the public engaged and asked them what matters to them.

They have answered so robustly that you do want computers to help you sift through it. And so what we will be doing is I hope additive with all the other ways that you might want to interact with the data.

You will still be able to see each of those so far 407 into the jewel areas one at a time and see what people said about them and consider them with your own human intelligence.

You will also have some recommended patterns and emergent areas that come from an algorithmic analysis surely to assist you.

I want to encourage you and you probably heard me say this a lot and I really believe it and encourage you to think of assistance and not outsourcing, Rhonda?

>> MS. SARAH REINHARDT: This is Sarah Reinhardt with the Michigan Department of State and to that end I just wanted to reiterate something that Moon mentioned in her presentation which is that in addition to receiving these sort of aggregate COIs provided by MGGG, you will also be provided with the individual shape files as well.

So you can consider this sort of aggregate COI analysis that they are providing as a useful tool in your toolbox and you as a Commission can determine which data source you find more useful or if you prefer to use both or one or the other, it's entirely up to you all.

>> DR. DUCHIN: Couldn't agree more and just want to say the recommendation is that you use a mix.

That you take a look at the COIs that emerged from our summary process, use those to guide you.

But always go back to the original data as well.

One other thing that I kind of passed over quickly, because you've gotten so much information in different formats, so the written submissions, the Districting plans, sometimes when someone draws a plan in the text that they write when they submit it, they have a lot of community description embedded in a Districting plan.

And sometimes people are sending you links and file uploads.

I just want to be clear we are mining, the text from all of those types of submissions when we look for our themes so it's not only the COI submissions but all submissions to the portal are being taken into account in the language processing that looks for the important themes.

That was for us that was a really crucial element of the workflow was to make sure that we are capturing submissions across multiple formats that different people felt more comfortable with.

- >> CHAIR KELLOM: Moon, there don't seem to be any questions on our end. If people might still be thinking but right now there are no hands raised.
- >> DR. DUCHIN: Maybe I will say one more thing before I sign off so with the census data coming down next Thursday of course this whole redistricting adventure will click into gear at a different level after that.

So our thinking of the timeline has always been this is the right time to take the data that has been submitted so far and put it together.

So that's why we have just in the past week shifted into aggregation and synthesis mode.

So you should expect a preliminary report on what we're finding in terms of these emergent COIs.

I would say within the next ten days and certainly August is a month that we were always thinking would be a crucial one for us to give you our first set of these. But like so much else with redistricting, that's not a process where we have to stop submissions, you know, impose a deadline, and give you a once and for all report. Because this is a data science process that we're building just like when you generate shape files you will be able to do it at any time.

So at any point in the process you can come back to us and say can you update those emergent COIs and get a new set of them that reflects all the data up to that point. So you should communicate with us and let us know if there is a key time that you would like that fresh set of emergent COIs available to you so you can start drawing around them.

And we are basically on call to support.

Okay, so thanks so much as always for giving me the opportunity to come speak to you. And please be in touch if you have any questions at all.

- >> CHAIR KELLOM: Moon, thank you so much for joining us today and we hope you have a wonderful rest of your day and a great weekend as well.
 - >> DR. DUCHIN: Thank you. You too, take care.
- >> CHAIR KELLOM: All right Commissioners we are officially finished with all of the items on the agenda and we don't have any further business to discuss so I would entertain a motion for adjournment so that we are clear.
 - >> So moved.
 - >> CHAIR KELLOM: Motion made by Commissioner Witjes.

Second made by Commissioner Rothhorn.

Is there any debate or discussion on the actual motion? All in favor of adjournment please raise your hand and say aye.

- >> Aye.
- >> CHAIR KELLOM: All opposed raise your hand and say nay.

And meeting is adjourned at 12:30 p.m. thank you Commissioners and thank you to EDS and thank you for everyone that help set up today.